```
9:Business & Industry(R) Jul/1994-2004/Aug 18
        (c) 2004 The Gale Group
     15:ABI/Inform(R) 1971-2004/Aug 20
File
         (c) 2004 ProQuest Info&Learning
     16:Gale Group PROMT(R) 1990-2004/Aug 20
File
         (c) 2004 The Gale Group
     20:Dialog Global Reporter 1997-2004/Aug 20
File
         (c) 2004 The Dialog Corp.
     47: Gale Group Magazine DB(TM) 1959-2004/Aug 20
File
         (c) 2004 The Gale group
     75:TGG Management Contents(R) 86-2004/Aug W2
File
         (c) 2004 The Gale Group
File 80:TGG Aerospace/Def.Mkts(R) 1986-2004/Aug 20
         (c) 2004 The Gale Group
File 88:Gale Group Business A.R.T.S. 1976-2004/Aug 19
         (c) 2004 The Gale Group
File 98:General Sci Abs/Full-Text 1984-2004/Jul
         (c) 2004 The HW Wilson Co.
File 112:UBM Industry News 1998-2004/Jan 27
         (c) 2004 United Business Media
File 141:Readers Guide 1983-2004/Jul
         (c) 2004 The HW Wilson Co
File 148: Gale Group Trade & Industry DB 1976-2004/Aug 20
         (c) 2004 The Gale Group
File 160: Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 275: Gale Group Computer DB(TM) 1983-2004/Aug 20
         (c) 2004 The Gale Group
File 264:DIALOG Defense Newsletters 1989-2004/Aug 20
         (c) 2004 The Dialog Corp.
File 484:Periodical Abs Plustext 1986-2004/Aug W2
         (c) 2004 ProQuest
File 553: Wilson Bus. Abs. FullText 1982-2004/Jul
         (c) 2004 The HW Wilson Co
File 570: Gale Group MARS(R) 1984-2004/Aug 20
         (c) 2004 The Gale Group
File 608:KR/T Bus.News. 1992-2004/Aug 20
         (c)2004 Knight Ridder/Tribune Bus News
File 620:EIU: Viewswire 2004/Aug 19
         (c) 2004 Economist Intelligence Unit
File 613:PR Newswire 1999-2004/Aug 20
         (c) 2004 PR Newswire Association Inc
File 621: Gale Group New Prod. Annou. (R) 1985-2004/Aug 20
         (c) 2004 The Gale Group
File 623: Business Week 1985-2004/Aug 19
         (c) 2004 The McGraw-Hill Companies Inc
File 624:McGraw-Hill Publications 1985-2004/Aug 19
         (c) 2004 McGraw-Hill Co. Inc
File 634: San Jose Mercury Jun 1985-2004/Aug 19
         (c) 2004 San Jose Mercury News
File 635:Business Dateline(R) 1985-2004/Aug 20
         (c) 2004 ProQuest Info&Learning
File 636: Gale Group Newsletter DB(TM) 1987-2004/Aug 20
         (c) 2004 The Gale Group
File 647:CMP Computer Fulltext 1988-2004/Aug W2
         (c) 2004 CMP Media, LLC
File 696:DIALOG Telecom. Newsletters 1995-2004/Aug 19
         (c) 2004 The Dialog Corp.
File 674: Computer News Fulltext 1989-2004/Jul W4
         (c) 2004 IDG Communications
File 810: Business Wire 1986-1999/Feb 28
         (c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
         (c) 1999 PR Newswire Association Inc
File 587: Jane's Defense&Aerospace 2004/Aug W1
         (c) 2004 Jane's Information Group
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Set		Description
S1	314042	((ESTIMAT??? OR CALCULAT??? OR COMPUT??? OR DETERMIN??? OR
	EV	ALUAT??? OR ANALY???? OR FIND??? OR SEARCH??? OR MONITOR???
	OR	TRACK??? OR GAUG??? OR MEASUR??? OR IDENTIF??? OR SENS??? -
		DETECT???) (5N) (SPEED?? OR ACCLERAT??? OR VELOCIT???))
52	1648153	S1(S) (RECEIVER???? OR TRANSCEIVER?? OR CELLULAR?? OR CELLP-
	но	N?? OR CELL()PHON??) OR ((MOBILE?? OR REMOTE?? OR WIRELESS??
	OR WIRE()LESS?? OR CELLULAR??)(3N)(UNIT? OR DEVICE? ? OR APP-	
		ATUS?? OR TERMINAL?? OR PHONE? OR TELEPHONE?))
S3	68486	TIME (3N) DELAY?? OR TIMEDELAY???
S 4	15209	MULTI()PATH?? OR MULTIPATH?? OR MULTIPLEPATH OR MULTIPLE()-
_		TH??
S5	6648	PHASE??(5N) DIFFERENC??
S 6	24796	(SPEED OR VELOCIT???) (1N) LIGHT??
s7	5409	CARRIER (2N) FREQUEN???
S8	20778	SAMPL???(2N) PERIOD??
S 9	152	CHANNEL?? (2N) COEFFICIENT??
S10		PHASE??(3N)COEFFICIEN??
S11	120	WIENER?? (3N) FILTER??
S12	1	AU=(DA()ROCHA A? OR DAROCHA A? OR DA()ROCHA, A? OR DAROCHA,
		OR GUILBAUD M? OR GUILBAUD, M?)
S13	149	S2 (11N) S3
S14	0	S13 (11N) S4
S15	562	S2 (S) S3
S16	2	S15 (S) S4
S17	0	S2 (S) S11
S18	422	S2 (S) S4
S19	0	S18 (S) S5
S20	91	S2(9N)(S5 OR S6 OR S7 OR S8 OR S9 OR S10)
S21	0	S20 (S) S4
S22	2	S20 (S) S3
S23	163	S2(S)S6
S24	0	S20(S)(S9 OR S10)
· S25	0	S2(S)(S9 OR S10)
S26	6	S2(9N)S5

.

12/3,K/1 (Item 1 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.
(c) 2004 The Gale Group. All rts. reserv.

04650049 SUPPLIER NUMBER: 20306810

Numerical study of sail aerodynamics.

Guilbaud, Michel; Rajaona, D.R

Journal of Fluids Engineering, v119, n4, p960(8)

Dec, 1997

ISSN: 0098-2202

LANGUAGE: English

RECORD TYPE: Citation

Guilbaud, Michel ...

16/3,K/1 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2004 ProQuest Info&Learning. All rts. reserv.

00655544 93-04765

Applied Microcell Technology in the PCS Environment

Lee, W. C. Y.

Cellular Business v9n12 PP: 46-52 Nov 1992

ISSN: 0741-6520 JRNL CODE: CLB

WORD COUNT: 1172

ABSTRACT: Providing a viable personal communication system can be a challenge due to such difficulties as multipath fading, caused by moving terminals, and time delay spread of multipath wave arrival, caused by manmade structures. Today's cellular system uses cell sites to connect...

power to follow the **mobile** or portable **units**. The system intelligently knows where the portable unit is located, and transmits at a minimum...

16/3,K/2 (Item 1 from file: 587)
DIALOG(R)File 587:Jane's Defense&Aerospace
(c) 2004 Jane's Information Group. All rts. reserv.

10869161 Word Count:5554

Naval surveillance fixes gaze on a new breed of radar INTERNATIONAL DEFENSE REVIEW (IDR) OCTOBER 01, 1998 p. 24 v.031 no. 010 Section Heading: FEATURE By: Mark Hewish |\Joris Janssen Lok

...way ahead for future surface combatants. Current warships have large numbers of antennas and transmitters/ receivers, each performing unique functions in the areas of radar, electronic warfare, and communications.

In Fiscal...background (so IRST performance improves under conditions which radar-based systems find most difficult), no multipath effects, and high resolution. The French Navy has taken a lead to introduce an effective...

...sensor head with one long-wave IR (8-12mu) sensor of 300x8 detector elements with time delay integration (TDI); and one MWIR (3-5m) sensor of 300x10 elements, also with TDI. Both...low-flying targets. The US Naval Research

Laboratory (NRL) developed a signal-processing technique that determines the radial velocity of a contact from a single scan. The processor then uses this information, together with...

22/3,K/1 (Item 1 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.
(c) 2004 The Gale Group. All rts. reserv.

04369429 SUPPLIER NUMBER: 18253715

The GPS dilemma: balancing military risks and economic benefits. (global positioning system)

Lachow, Irving

International Security, v20, n1, p126(23)

Summer, 1995

ISSN: 0162-2889 LANGUAGE: English RECORD TYPE: Fulltext; Abstract

WORD COUNT: 10355 LINE COUNT: 00855

... that are identical to those being transmitted by the system's satellites. It calculates the **time delay** between its codes and the codes received from the GPS satellites by determining how far...

...to match those transmitted by the satellites. This travel time is then multiplied by the **speed** of **light** to **determine** the **receiver** 's distance to the satellites. A GPS receiver could, in theory, calculate its three-dimensional...

22/3,K/2 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.

0016968595 SUPPLIER NUMBER: 116181438 (USE FORMAT 7 OR 9 FOR FULL TEXT)

GPS-based earthmoving's awesome technology: experts tell us that GPS technology encompasses three basic "segments" ... the satellite system, a control system for the satellites, and the user's equipment. (GPS Earthmoving)

Construction Equipment, 107, 4, S6(3)

April, 2004

ISSN: 0192-3978 LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 1711 LINE COUNT: 00140

... compares this theoretical travel time with the signal's actual travel time, then calculates the **time delay** (or **time** differential) that the signal is experiencing.

The base station is equipped with a radio and...

26/3,K/1 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2004 The Gale Group. All rts. reserv.

4093111 Supplier Number: 105642786 (USE FORMAT 7 OR 9 FOR FULLTEXT) An integrated positioning system GPS + INS + pseudolites. (Innovation). (inertial navigation systems)

GPS World, v 14, n 7, p 42

July 2003

DOCUMENT TYPE: Journal ISSN: 1048-5104 (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 4308

(USE FORMAT 7 OR 9 FOR FULLTEXT)

#### TEXT:

...performe d computationally.) An extended Kalman filter provides a tightly coupled implementation that uses double- differenced (DD) carrier-phase measurements to optimally estimate position, velocity, and attitude of the platform. In addition, the accelerometer and gyroscope errors as well as...

26/3,K/2 (Item 1 from file: 15)

DIALOG(R) File 15:ABI/Inform(R)

(c) 2004 ProQuest Info&Learning. All rts. reserv.

02245566 86924088

Sensors for dynamic characterisation of magnetic storage systems

Jenkins, D F L; Clegg, W W; Windmill, J; Tunstall, G; Liu, X; Chilumbu, C;

Li. A

Sensor Review v20n4 PP: 307-315 2000

ISSN: 0260-2288 JRNL CODE: SEN

WORD COUNT: 4826

...TEXT: on to the reference mirror or another measurement point. The returning beam enters the interferometric **receiver**, which is used to measure the intensity and **phase difference** between the two polarised beams. The interferometric **receiver** consists of a non-polarising beam splitter NPBS2, two polarising beam splitters PBS2 and PBS3...

26/3,K/3 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.

08478208 Supplier Number: 72606570 (USE FORMAT 7 FOR FULLTEXT)

Gain, phase measurement in one chip. (Brief Article) (Product Announcement)

Electronic Engineering Times, p106

April 2, 2001

Language: English Record Type: Fulltext Article Type: Brief Article; Product Announcement

Document Type: Magazine/Journal; Trade

Word Count: 204

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

San Jose, Calif. - Analog Devices Inc.'s AD8302, a single-chip device for cellular basestation applications, can detect the gain and phase difference between two independent wireless signals at up to 2.7 GHz simultaneously.

26/3,K/4 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c) 2004 The Gale Group. All rts. reserv.

SUPPLIER NUMBER: 72606570 (USE FORMAT 7 OR 9 FOR FULL TEXT) Gain, phase measurement in one chip. (Brief Article) (Product Announcement) Electronic Engineering Times, 106

April 2, 2001

DOCUMENT TYPE: Brief Article Product Announcement ISSN: 0192-1541

LANGUAGE: English RECORD TYPE: Fulltext WORD COUNT: 204 LINE COUNT: 00020

WORD COUNT: 204

#### TEXT:

San Jose, Calif. - Analog Devices Inc.'s AD8302, a single-chip device for cellular basestation applications, can detect the gain and phase difference between two independent wireless signals at up to 2.7 GHz simultaneously.

26/3,K/5 (Item 1 from file: 275) DIALOG(R) File 275: Gale Group Computer DB(TM) (c) 2004 The Gale Group: All rts. reserv.

SUPPLIER NUMBER: 72606570 (USE FORMAT 7 OR 9 FOR FULL TEXT) Gain, phase measurement in one chip. (Brief Article) (Product Announcement) Electronic Engineering Times, 106

April 2, 2001

DOCUMENT TYPE: Brief Article Product Announcement ISSN: 0192-1541

LANGUAGE: English RECORD TYPE: Fulltext WORD COUNT: 204 LINE COUNT: 00020

San Jose, Calif. - Analog Devices Inc.'s AD8302, a single-chip device for cellular basestation applications, can detect the gain and phase difference between two independent wireless signals at up to 2.7 GHz simultaneously.

(Item 1 from file: 647) 26/3,K/6 DIALOG(R) File 647: CMP Computer Fulltext (c) 2004 CMP Media, LLC. All rts. reserv.

CMP ACCESSION NUMBER: EET20010402S0079 01234316

Gain, phase measurement in one chip

ELECTRONIC ENGINEERING TIMES, 2001, n 1160, PG106

PUBLICATION DATE: 010402

JOURNAL CODE: EET LANGUAGE: English

RECORD TYPE: Fulltext

SECTION HEADING: PRODUCTWEEK - POWER PRODUCTS

WORD COUNT: 189

### TEXT:

San Jose, Calif. - Analog Devices Inc.'s AD8302, a single-chip device for cellular basestation applications, can detect the gain and phase difference between two independent wireless signals at up to 2.7 GHz simultaneously.

```
(c) 2004 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20040812,UT=20040805
         (c) 2004 WIPO/Univentio
               Description
Set
       Items
               ((ESTIMAT??? OR CALCULAT??? OR COMPUT??? OR DETERMIN??? OR
       89677
S1
            EVALUAT ??? OR ANALY ???? OR FIND ??? OR SEARCH ??? OR MONITOR ???
            OR TRACK??? OR GAUG??? OR MEASUR??? OR IDENTIF??? OR SENS??? -
            OR DETECT???) (5N) (SPEED?? OR ACCLERAT??? OR VELOCIT???))
                (RECEIVER???? OR TRANSCEIVER?? OR CELLULAR?? OR CELLPHON??
S2
            OR CELL() PHON??) OR ((MOBILE?? OR REMOTE?? OR WIRELESS?? OR W-
             IRE()LESS?? OR CELLULAR??)(3N)(UNIT? OR DEVICE? ? OR APPARATU-
             S?? OR TERMINAL?? OR PHONE? OR TELEPHONE?))
               TIME (3N) DELAY?? OR TIMEDELAY???
S3
               MULTI()PATH?? OR MULTIPATH?? OR MULTIPLEPATH OR MULTIPLE()-
S4
        9899
            PATH??
       25094 PHASE??(5N) DIFFERENC??
.S.5
               (SPEED OR VELOCIT???) (1N) LIGHT??
        5759
S6
       16119 CARRIER (2N) FREQUEN???
s7
       13808 SAMPL???(2N) PERIOD??
S8
        1075 CHANNEL??(2N)COEFFICIENT??
S 9
        2109 PHASE??(3N)COEFFICIEN??
S10
         299 WIENER??(3N)FILTER??
S11
               AU=(DA()ROCHA A? OR DAROCHA A? OR DA()ROCHA, A? OR DAROCHA,
S12
            A? OR GUILBAUD M? OR GUILBAUD, M?)
         4744
               S1 (S) S2
S13
               S13 (S) S3
S14
         174
          15
               S14 (S) S4
S15
               IDPAT (sorted in duplicate/non-duplicate order)
          15
S16
               S16 NOT AD=20000831:20040820/PR
          15
S17
           0
               S13 (11N) S11
S18
           0
S19
               S13 (S) S11
           0
               S13 AND (S5 AND S6 AND S7 AND S8 AND S9 AND 10)
S20
           7
               S13 (S) (S9 OR S10)
S21
               S13 (S) S6
          129
S22
          72
               S13 (S) S5
S23
           5
               S22 (S) S23
S24
S25
               S23 AND IC=H04Q?
S26
           3
               S25 NOT (S24 OR S12 OR S17)
          348
               S13 AND IC=H04Q?
S27
               S27 AND S22
          13
S28
          13 S28 NOT (S26 OR S24 OR S12 OR S17)
S29
```

S29 NOT AD=20000831:20040820/PR

S30

File 348: EUROPEAN PATENTS 1978-2004/Aug W03

```
(Item 1 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
01400480
Receiving device for mobile radio communications unit using velocity
    estimator
                                            Funkkommunikationsgerat
Empfangseinrichtung
                        fur
                                mobiles
    Geschwindigkeitsschatzer
Dispositif de reception pour unite de radiocommunication mobile mettant en
    oeuvre un estimateur de vitesse
PATENT ASSIGNEE:
  ALCATEL, (201871), 54, rue la Boetie, 75008 Paris, (FR), (Applicant
    designated States: all)
INVENTOR:
  Da Rocha, Alexandre, Residence Minerve II, 14, rue Paul Lafargue, 92800
    Puteaux, (FR)
   Guilbaud, Michael , Residence ALJT - CH.525, 74, rue Alfred Labriere,
    95100 Argenteuil, (FR
LEGAL REPRESENTATIVE:
  Fournier, Michel Robert Marie et al (58197), COMPAGNIE FINANCIERE ALCATEL
    Dept. Propriete Industrielle, 30, avenue Kleber, 75116 Paris, (FR)
PATENT (CC, No, Kind, Date): EP 1185000 A1 020306 (Basic)
APPLICATION (CC, No, Date): EP 2001402148 010809;
PRIORITY (CC, No, Date): FR 0011118 000831
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04B-007/005; H04L-025/02
TRANSLATED ABSTRACT WORD COUNT:
                                     118
ABSTRACT WORD COUNT: 151
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): French; French; French
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
                           200210
                                      566
      CLAIMS A (French)
                                      4675
                           200210
      SPEC A
                 (French)
Total word count - document A
                                      5241
Total word count - document B
                                         0
Total word count - documents A + B
                                      5241
INVENTOR:
... FR)
   Guilbaud, Michael ...
```

```
17/3,K/1
              (Item 1 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
01394149
Mobile communication system
Mobilkommunikationssystem
Systeme de communication mobile
PATENT ASSIGNEE:
  Pioneer Corporation, (2812420), 4-1 Meguro 1-chome, Meguro-ku, Tokyo,
    (JP), (Applicant designated States: all)
INVENTOR:
  Nohara, Manabu, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Shioda, Takehiko, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Kodama, Yasuteru, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Suzuki, Masami, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Inoue, Hiroto, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Arakawa, Katsunori, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Odagawa, Satoshi, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Yamazaki, Osamu, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
  Okamura, Masahiro, Pioneer Corporation, 6-1-1, Fujimi, Tsurugashima-shi,
  Saitma 350-2288, (JP)
Akimoto, Takayuki, Pioneer Corpóration, 6-1-1, Fujimi, Tsurugashima-shi,
    Saitma 350-2288, (JP)
LEGAL REPRESENTATIVE:
  Betten & Resch (101033), Patentanwalte Theatinerstrasse 8, 80333 Munchen,
    (DE)
PATENT (CC, No, Kind, Date): EP 1180904 A1 020220 (Basic)
APPLICATION (CC, No, Date): EP 2001117377 010718;
PRIORITY (CC, No, Date): JP 2000218000 000718; JP 2000218001 000718; JP
    2000218002 000718; JP 2000218003 000718; JP 2000218004 000718
DESIGNATED STATES: DE; FR; GB
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04Q-007/38
ABSTRACT WORD COUNT: 177
NOTE:
  Figure number on first page: 4
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                      Word Count
               (English)
                            200208
                                        901
      CLAIMS A
                            200208
                                      22344
      SPEC A
                (English)
                                      23245
Total word count - document A
Total word count - document B
                                          0
Total word count - documents A + B
                                      23245
... SPECIFICATION portion 5 and transmitted towards the base station.
```

- ...SPECIFICATION portion 5 and transmitted towards the base station.

  In the state in which the electronic apparatus and the mobile station MDT are not connected to each other, when a user operates the transmission start...
- ...DLYn, DEM1 through DEMn, DEB, Dsp) showing characteristics of a received state by summarizing the multipath number datas DMP1 through DMPn with identification codes supplied from the multipath number measuring portion 4a, the propagation delay time period datas DLY1 through DLYn with identification codes supplied from the multipath delay amount measuring portion 4b, the multipath electric field intensity data with identification codes DEM1 through DEMn supplied from the multipath

electric field intensity measuring portion 4c, the base station electric field intensity data DEB supplied from the base station electric field intensity measuring portion 4d and the speed data Dsp supplied from the moving speed measuring portion 4f.

Further, since the apparatus and the mobile station MDT are not connected to...

17/3,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.

00964751

Pilot interference cancellation for a coherent wireless code division multiple access receiver

Pilotsrorungsunterdruckung fur einen koharenten drahtlosen Kodeverteilvielfachzugriffsempfanger

Annulation d'interference de pilote pour un recepteur coherent sans fil a acces multiple par division de code PATENT ASSIGNEE:

LUCENT TECHNOLOGIES INC., (2143720), 600 Mountain Avenue, Murray Hill, New Jersey 07974-0636, (US), (Applicant designated States: all) INVENTOR:

Huang, Howard C., 3 Manor Drive, Red Bank, New Jersey 07701, (US)
Ten Brink, Stephan, Lichtensteinweg 8, 71573 Allmersbach im Tal, (DE)
I, Chih-Lin, 9 Taylor Lake Court, Manalapan, New Jersey 07726, (US)
Vannucci, Giovanni, 329 Rutledge Drive, Red Bank, New Jersey 07701, (US)
LEGAL REPRESENTATIVE:

Williams, David John et al (86433), Page White & Farrer, 54 Doughty Street, London WClN 2LS, (GB)

PATENT (CC, No, Kind, Date): EP 876002 A2 981104 (Basic) EP 876002 A3 020227

APPLICATION (CC, No, Date): EP 98303041 980421;

PRIORITY (CC, No, Date): US 841316 970430

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04B-001/707

ABSTRACT WORD COUNT: 104

NOTE:

Figure number on first page: 7

LANGUAGE (Publication, Procedural, Application): English; English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS A (English) 9845 960 SPEC A (English) 9845 7347 Total word count - document A 8307 Total word count - document B 0 8307 Total word count - documents A + B

...SPECIFICATION of the I and Q signals received over the various signal paths.

In a RAKE **receiver**, there are several (typically 4) mostly identical "finger" units 305-308. Each of the finger...

...is used to demodulate a received signal arriving over a different air path of the multipath environment. These finger units 305-308 are essentially the same except they have a different time delay, attenuation and phase characteristics. The finger unit 308 additionally includes a small amount of additional logic to allow its use as a high-speed pilot searcher (for use in coherent receivers to detect the Walsh signal pilot shown in Fig. 1).

The pilot searcher finger 308...

(c) 2004 European Patent Office. All rts. reserv.

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00896620
```

Multi-code code division multiple access receiver

Multicode-Empfanger mit Vielfachzugriff durch Codemultiplex

Recepteur avec acces multiple par repartition de codage par multiplexeur du code

PATENT ASSIGNEE:

LUCENT TECHNOLOGIES INC., (2143720), 600 Mountain Avenue, Murray Hill, New Jersey 07974-0636, (US), (Applicant designated States: all)

INVENTOR:

I, Chih-Lin, 9 Taylor Lake Court, Manalapan, New Jersey 07726, (US) Webb, Charles Albert, III, 62 Waterman Avenue, Rumson, New Jersey 07760, (US)

Partyka, Andrzej, 370 Finch Lane, Bedminster, New Jersey 07921, (US) LEGAL REPRESENTATIVE:

Watts, Christopher Malcolm Kelway, Dr. et al (37391), Lucent Technologies (UK) Ltd, 5 Mornington Road, Woodford Green Essex, IG8 OTU, (GB)

PATENT (CC, No, Kind, Date): EP 818901 A2 980114 (Basic) EP 818901 A3 010905

APPLICATION (CC, No, Date): EP 97304767 970701;

PRIORITY (CC, No, Date): US 678834 960712

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: H04J-013/00; H04B-007/216; H04B-001/06;

H04B-001/707

ABSTRACT WORD COUNT: 83

NOTE:

Figure number on first page: 7

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count
CLAIMS A (English) 9803 284
SPEC A (English) 9803 3391
Total word count - document A 3675
Total word count - document B 0
Total word count - documents A + B 3675

...SPECIFICATION of the I and Q signals received over the various signal paths.

In the RAKE receiver, there are several mostly identical "finger" units 505-508. Each of the finger units 505...

...used to despread/demodulate a received signal arriving over a different air path of the multipath environment. These finger units 505-508 are essentially the same except they have a different time delay, attenuation and phase characteristics. The finger unit 508 additionally includes a small amount of additional logic to allow its use as a high-speed pilot searcher (for use in coherent receivers to detect the Walsh signal pilot W0)), as shown in Fig. 2) and/or new data path searchers (for use in a non-coherent receiver to recover timing from a data signal).

In accordance with the present invention, the CDMA...

# 17/3,K/4 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00831705 \*\*Image available\*\*

METHODS AND APPARATUS TO POSITION A MOBILE RECEIVER USING DOWNLINK SIGNALS PROCEDES ET DISPOSITIF DE POSITIONNEMENT DE RECEPTEUR MOBILE A L'AIDE DE SIGNAUX DE LIAISON DESCENDANTE

Patent Applicant/Assignee:

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    (Residence), CA (Nationality), (Designated only for: US)
Legal Representative:
  LAMBERT Anthony R (agent), Thompson Lambert, Suite #103, 10328 - 81
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Patent and Priority Information (Country, Number, Date):
                        WO 200165271 A1 20010907 (WO 0165271)
  Patent:
                        WO 2000CA224 20000303 (PCT/WO CA0000224)
 Application:
  Priority Application: WO 2000CA224 20000303
Parent Application/Grant:
  Related by Continuation to: US 98169916 19981009 (CIP); US 98169730
    19981009 (CIP); US 98169852 19981009 (CIP); US 98169690 19981009 (CIP)
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
 AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB
  GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA
 MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA
 UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 32512
Fulltext Availability:
  Claims
Claim
... shows correlation values which might be obtained when searching for a
  particular pilot over multiple time lags, or delay offsets. Ec/Io is
  the ratio of average pilot chip energy to the total received...either
  estimated and
  SUBSTITUTE SHEET (RULE 26)
  removed, or nuitigated. In the case the estimated time
                                                            delay , -ci, is
  to solve for the TDOA between the received signal ri(t) and the
  received signal rj(t), the difference in multipath, MPi(t) - MPj(t),
  is the distorting factor which has to be n-@tigated.
  The effect of Multipath , MPjt).*
  When multipath is considered, the accuracy of the AMPs land-based
 WLS could potentially degrade even further...
...from natural and man-made objects as well as diffraction
  said objects are also possibilities. Multipath and. diffiaction
  allow the cellular sig nal to propagate in heavily built up areas...
... Radio Services, " IEEE Transactions
  on Vehicular Technology, Vol. VT-29, No. 3, August 198.0) multipath
  causes the location accuracy to degrade to more than 1400m RMS.
  Once again, the reason for this is that the correlation function from
             multipath may be estimated has a resolution which is limited
  which the
  to that of the Fourier transform which implies that any multipath
  such a resolution is unresolvable using traditional methods. Further
  processing using an inverse SR algorithm often yields a result With
  higher multipath resolution as shown by Dumont, L.R., et al., " Super
  resolution of Multipath Channels in a Spread Spectrum Location
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System, " 1EE Electronic Letters, Vol. 30, No. 19, pp...

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... Speech, and
 Οj
  Signal Processing, Vol. ASSP-36, No. 10, October, 1988. Another
  approach to multipath resolution is due to Morley, G.D. et al.,
  "Improved Location Estimation with pulse-ran ing in presence of
  91
  shadowing and multipath excess-delay effects," Electronics Letters,
 Vol. 3 1, No. 18, pp. 1609-1610, 3 1...
...1995. It is proposed to use
  SR and inverse SR algorithms to better resolve the multipath
  components in the received radio signal, as opposed to
  Dent, U.S. Patent No. 5 of the 'NM (x,y) must be known (or estimated )
 prior to estimating the speed and velocity of the MR, in order to
 be able to Imow A., Ak and A. in...
...can be
  resolved if the frequency offsets A@- are estimated by the RR and
 removed. multipath , =Wot : The effect of the multipath Wi(t) in
  this case is to add some Doppler shift to 50- due to...
...it. is assumed that the position,
  (x,y), of the MR is known prior to estimating its speed and DOT. This
  usually no t true and (x,y) needs to be esitimated...
...estimation of (xy) is imperfect implying that it will contain errors
  that can affect the estimation, of the speed of the MRand its DOT.
  The practical description explains methods and apparatus to estimate U...
 17/3,K/5
              (Item 2 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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           **Image available**
00809232
A RECEIVER FOR A SATELLITE BASED POSITION LOCATION SYSTEM
RECEPTEUR POUR SYSTEME SATELLITAIRE DE DETERMINATION DE POSITIONS
Patent Applicant/Assignee:
  NOKIA MOBILE PHONES LIMITED, Keilalahdentie 4, FIN-02150 Espoo, FI, FI
    (Residence), FI (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
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    GB (Residence), GB (Nationality), (Designated only for: US)
Legal Representative:
  JONES Kendra (agent), Nokia IPR Dept., Nokia House, Summit Avenue,
    Farnborough, Hampshire GU14 ONG, GB,
Patent and Priority Information (Country, Number, Date):
                        WO 200142811 A1 20010614 (WO 0142811)
  Patent:
                        WO 2000GB4706 20001208 (PCT/WO GB0004706)
  Application:
  Priority Application: GB 9929327 19991210; GB 200016246 20000630
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
  AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CR CU
  CZ CZ (utility model) DE DE (utility model) DK DK (utility model) DM DZ
  EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL
  IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO
  NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG
  US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
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Fulltext Word Count: 6662

Fulltext Availability: Claims Claim ... transform value ratios, and deriving from respective transform value ratios corresponding scaled values of the time delay of the signal between the satellite and the receiver . Other aspects and features of ...present invention. As indicated above, the present invention is concerned with the problem of a receiver attaining synchronisation with an incoming satellite transmitted pseudo random noise (PRN) signal in the context of the GPS system. Figure 1 shows the functional blocks making up a preferred receiver arrangement of the present invention. The incoming signal received by the receiver is represented as R(t) where t is the ideal time of the transmitted signal. The receiver initially samples the incoming signal in block 12 by a sampler operating at a sample... chip. For the purposes of this description, time is measured with respect to the receiver 's clock. A sequence of samples of R(t) begins to repeat with a period... ...given by Eqn 1: R[t] = R[t + 1]1 Nos T) In reaching the receiver , the signal transmitted by the satellite follows more than one path, having reflected off natural...accuracy of the preferred method is obtained when the bit sequence being transformed in the receiver lies within one duration of the navigational data, although if the expected signal is longer...delay required to obtain synchronisation. It should be noted that the delay spread due to multipath propagation between the different bins is much smaller than the delay itself, and this may be expressed in terms of the mean delay and the incremental delay due to multipath propagation as follows in Eqn 12: k2w P A :k 2 ;T P A' [k...KMHos The Arg of the transform value ratio coefficients yields noisy scaled

values of the time delay and a noise factor. Other operations could be used to obtain the delay from the...

...the output is able to be averaged in a manner so as to isolate the time delay so that it can be extracted. The result of Eqn 18 is dependent on the...functions necessary for the algorithm are set up. As explained previously, both the satellite and receiver contain a C/A generator that generate the C/A code sequence. The generation of the C/A code in the receiver is set up as follows: 10

2 1

1023

G1 register is the state register...

...for the synchronisation algorithm, the system is initialised using the following initialisation conditions. In the receiver , initialisation begins with generating a sequence that is used for correlation with the received satellite...the spectrum

being resolved into frequency bins and provided in a look-up table. The receiver calculates the DFT of this sequence by sampling the data using the initialisation data defined...

...selected in the NextIset of the expected transmitted signal. As noted above, to reach the receiver, the transmitted signal follows more than one path, as a result of reflections. Thus, the...

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17/3,K/6
              (Item 3 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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00779933
            **Image available**
DOPPLER SPREAD ESTIMATION USING CHANNEL AUTOCORRELATION FUNCTION HYPOTHESES
ESTIMATION DE L'ETALEMENT DOPPLER A L'AIDE D'HYPOTHESES DE FONCTION
    D'AUTOCORRELATION DE CANAL
Patent Applicant/Assignee:
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    US, US (Residence), US (Nationality)
  MOLNAR Karl James, 110 Flying Leaf Court, Cary, NC 27513, US
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  ARSLAN Huseyin, 600 Aaron Circle, #612, Durham, NC 27713, US
Legal Representative:
 MYERS BIGEL SIBLEY SAJOVEC P A, P.O. Box 37428, Raleigh, NC 27627, US
Patent and Priority Information (Country, Number, Date):
                        WO 200113537 A1 20010222 (WO 0113537)
  Patent:
                        WO 2000US21081 20000802 (PCT/WO US0021081)
  Application:
  Priority Application: US 99373289 19990812
Designated States:
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prior to 2004)
  AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE
  ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT
 LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
  TR TT TZ UA UG UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 7014
Fulltext Availability:
  Claims
Claim
  particularly to receiving radio communications.
  BACKGROUND OF THE INVENTION
  A radio channel for a mobile
                                  terminal in a cellular radiotelephone
  communications system may be difficult to operate. In particular, the
  transmitted signals are often...
...scattered, diffracted, delayed, and attenuated by the surrounding
  environment. Moreover, the radio channel for a mobile
                                                           terminal is
  often not stationary because of movement of the mobile
   terminal and movement of objects near the mobile
                                                        terminal . The
  mobile
   terminal may move rapidly when used in an automobile, and other
  may also be in motion near the mobile
                                           terminal .
  Characteristics of the radio channel may also vary from one area to
  another due to...
... The propagation of a radio signal along the radio channel may thus be
  subject to multi - path fading, shadowing, and path loss. Of these
  factors, multi - path fading may be the most significant, and multi -
  path fading can be characterized by envelope fading, Doppler spread, and
   time - delay spread.
  Doppler shift is the frequency shift experienced by the radio signal
```

terminal is in motion, and the Doppler spread is a

when the mobile

measure of the spectral broadening caused...

- ...change in the observed signal. The adaptation time of an algorithm used in an adaptive receiver should thus be faster than the rate of change of the channel to be able to accurately track the fluctuations in the received signal. A mobile terminal in a DAMPS cellular radiotelephone communications system, for example, may experience a Doppler spread in the range of OHz
- ...5,016,017 to Raith entitled "METHOD OF CONTROLLING THE FREQUENCY OF A COHERENT RADIO RECEIVER AND APPARATUS FOR CARRYING OUT THE METHOD". The disclosures of each of these patents is...
- ...to provide improved methods of estimating Doppler spreads for communications channels and related systems and receivers.

  It is another object of the present invention to provide less complex methods of estimating Doppler spreads and related systems and receivers

These and other objects can be provided according to the present invention by providing an...

...signals wherein comparing the error signals comprises comparing the averaged error signals.

Methods, systems, and receivers according to the present invention can thus be used to provide estimates of Doppler spreads of a communications system including a

receiver according to the present invention.

Figures 2-4 are block diagrams of **receivers** according to the present invention.

Figure 5 is a block diagram of a Doppler spread...

- ...6 is a graph illustrating autocorrelation functions for radio channels at different speeds of a **receiver** relative to a base station. Figure 7 is a table illustrating a storage of samples...
- ...Like numbers refer to like elements throughout.

  Figure 1 illustrates a transmitter T and a receiver R according to the present invention wherein data d is transmitted by the transmitter T...
- ...noise n. In a flat fading channel: r=hod+n. (equation 1)

As discussed above, receiver performance can be improved by estimating the

Doppler spread and using the estimated Doppler spread to adapt receiver functions. More particularly, the estimated Doppler spread can be used to more accurately estimate the radio channel h. The use of Doppler spread estimators in receivers is discussed in co-pending U.S. Patent Application

Serial No. to Leonid Krasny et...

...the Krasny et al. application is hereby incorporated herein in its entirety by reference.

Various receivers Ra, Rb, and Rc including Doppler spread estimators according to the present invention are illustrated in Figures 2 In particular, the receiver Ra of Figure 2 is adapted for use with known pilot symbols, and

this receiver includes an antenna 21 that receives the signal r, a radio

receiver and converter 23a, a channel estimator 25a, a Doppler spread estimator 27a, a known symbol...

...a signal processor 31a. The antenna 21a receives the radio signals r, and the radio receiver and convertor 23a filters, amplifies, and converts the received radio signals r into digital samples...

...25a so that the channel estimates can be improved after the Doppler spread estimation.

The receiver Rb of Figure 3 is adapted for use without known pilot symbols. This receiver includes an antenna 21 b that receives the signal r, a radio receiver and converter 23b, a channel estimator 25b, a Doppler spread

estimator 27b, a symbol estimator 29b, and a signal processor 31 b. The receiver Rb is similar to the receiver Ra of Figure 2 with the exception that the symbol estimator 29b is used instead of the known symbol block 29a used in

the receiver of Figure 2. The symbol estimator 29b can be used in applications where symbols are...

... O Doppler spread as discussed in greater detail below. In code-division multiple access (CDMA) cellular systems (such as IS95 systems), a transmitter transmits a stream of known sym bols known...

#### ...the

same time as other information bearing symbols using different spreading 1 5 codes. The **receiver** Rc of Figure 4 provides Doppler spread estimations in

such a CDMA system. The **receiver** Rc of Figure 4 is adapted for use with known pilot symbols, and this **receiver** includes an antenna 21c that receives the signal r, a radio **receiver** and converter 23c, a channel estimator 25c, a

Doppler spread estimator 27c, and a signal processor 31c. In this CDMA receiver, the channel can be estimated directly by the channel estimator 25c without the known symbol...pilot code correlations for the same delay, and the results added to coherently combine the multi - path signals. In wide band

CDMA (WBCDMA) systems, modulation symbol intervals may be much shorter thus allowing multiple propagation paths to be resolved with much finer time resolution.

The receivers of Figures 2-4 thus illustrate various receivers including

Doppler spread estimators according to the present invention. In each 7

receiver , channel estimates are provided to the Doppler spread
estimator for

calculation of the Doppler spread estimates. Receivers including Doppler

spread estimators according to the present invention are not limited to the channel...

...time slot using symbols representing data samples received during the time slot. For example, the **receiver** Rb of Figure 3 can

include the symbol estimator 296 to estimate the symbols. The...

...spread estimator of Figure 5. The Doppler spread estimator can be used, for example, with **receivers** of radiotelephone communication systems operating according to either the DAMPS or DAIVIPS+ standards. In DAMPS...

...stored in memory. In particular, actual radio channels and corresponding Doppler spread values can be determined

at different mobile terminal speeds relative to the base station, and the resulting autocorrelation functions can be calculated for each speed.

Graphical examples of hypotheses of different autocorrelation functions (correlation VS. T) corresponding to radio channels measured at different speeds and corresponding to different Doppler spread values are illustrated in Figure 6.

9

Samples of...

17/3,K/7 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

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00769805 \*\*Image available\*\*

HOME ZONE SERVICE METHOD FOR MOBILE TELEPHONE SUBSCRIBERS IN MOBILE RADIO COMMUNICATION SYSTEM

PROCEDE DE SERVICE EN ZONE LOCALE DESTINE A DES ABONNES DE TELEPHONE MOBILE DANS UN SYSTEME DE COMMUNICATION PAR RADIOTELEPHONE MOBILE

Patent Applicant/Assignee:

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LEE Yun-Hee, 110, Imae-dong, Puntang-gu, Songnam-shi, Kyonggi-do463-060, KR

PARK Young-Soo, Hyundaechangwoo APT. #104-1707, Jukjeon-ri, Suji-up, Yongin-shi, Kyonggi-do 449-840, KR

Legal Representative:

LEE Keon-Joo, Mihwa Bldg. 110-2, Myongryun-dong 4-ga, Chongro-gu, Seoul 110-524, KR

Patent and Priority Information (Country, Number, Date):

Patent: WO 200103372 Al 20010111 (WO 0103372)

Application: WO 2000KR712 20000703 (PCT/WO KR0000712)

Priority Application: KR 9926956 19990705

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English Filing Language: English Fulltext Word Count: 3695

Fulltext Availability: Detailed Description

# Detailed Description

... then multiplying the divided value by 2. However, the radio wave is transmitted in a multipath characteristic environment. Thus, a delay time caused by the multipath characteristics of the radio wave can affect the RTD calculation. Typically, the delay time involved in similar background areas exhibit similar delay characteristic. Thus, in the embodiment of the present invention, the delay time involved in different background is collectively measured and their mean values are measured to create...

...defines the reduced charging area. The delay times vary depending on different location where the mobile phone might be located, such as a downtown area, a shopping center, apartment or factory building area, etc. Thus, using the previously determined database which accounts for various multipath characteristics, a more accurate RTD value can be obtained to define the home zone.

In...

17/3,K/8 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00755772 \*\*Image available\*\*
WIRELESS LOCATION SYSTEM

# SYSTEME DE LOCALISATION SANS FIL Patent Applicant/Assignee: CELL-LOC INC, Suite 220, Franklin Atrium, 3015 - 5th Avenue, N. E., Calgary, Alberta T2A 6T8, CA, CA (Residence), CA (Nationality), (For all designated states except: US) Patent Applicant/Inventor: FATTOUCHE Michel, 3627 Utah Drive, N.W., Calgary, Alberta T2N 4A6, CA, CA (Residence), CA (Nationality), (Designated only for: US) OLER Kevin, 5036 - 2nd Street N.W., Calgary, Alberta T2K 0Z3, CA, CA (Residence), CA (Nationality), (Designated only for: US) KLUKAS Richard, 8409 Arbor Creel :ame, McKinney, TX 75070, US, US (Residence), CA (Nationality), (Designated only for: US) CHOW Mable M C, 7515 Huntridge Crescent, N.E., Calgary, Alberta T2K 4C8, CA, CA (Residence), CA (Nationality), (Designated only for: US) Legal Representative: LAMBERT Anthony R, Thompson Lambert, 10328 - 81 Avenue, Suite #103, Edmonton, Alberta T6E 1X2, CA Patent and Priority Information (Country, Number, Date): WO 200069198 A1 20001116 (WO 0069198) Patent: WO 2000CA492 20000504 (PCT/WO CA0000492) Application: Priority Application: US 99132814 19990506 Designated States: (Protection type is "patent" unless otherwise stated - for applications prior to 2004) AE AG AL AM AT AU AZ BA BB BG BR BY CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ

UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 50464

Fulltext Availability: Claims

# Claim

- ... Multi-lateration (as shown in Turin, G. L. et al., "A Statistical Model of Urban Multipath Propagation, " IEEE Transactions on Vehicular Technology, Vol. VT-21, No. 1, February 1972, and as...
- ... Figure 8 illustrates the description of Design I (discussed below) for an exemplary IF-sampling receiver for use in locating a mobile transmitter with precision, and which may then be used...a MS. The Host comprises one or more computers that receive information from MSs and estimate the location, speed, and DOT of a CT. Although not explicitly shown on Figure 14, the Host also...
- ...RF shadowing and flat fading, frequency offsets (including LOs drift and Doppler Shifts), clock errors, time delays, noise, multipath (selective fading), interference; geographical geometry of the MSs relative to the intended CT, and power...
- ...BS or a CT, since both types of signals may contain information of interest in determining the location or velocity of a CT. RE Reception: Then, the LP equivalent received signal, @-, JO, through the k ... of the ith MS (a function of temperature and bandwidth),

MPi.k(t) represents all multipath components (complex) at the k 1h antenna of the it" MS (a function of the...

... Afi, k is the frequency error between the Local Oscillators (LOs) in the

receiver at the ith MS and the carrier frequency f,; and @i,k is the carrier phase of the LOs in the klh receiver at the it'

MS. From equations (5), (6) and (8), one can refer to:  $\dots$ k(0+ii,k (t)@-j2nfc t as the received and downconverted noise, interference, and multipath . In other @i5k (0= SOAi5k - exp(jYi, k + j27tfi, kt)'P(t - TOAi, k... (Item 6 from file: 349) 17/3,K/9 DIALOG(R) File 349: PCT FULLTEXT (c) 2004 WIPO/Univentio. All rts. reserv. 00749027 \*\*Image available\*\* UNIVERSAL SYNCHRONOUS NETWORK SYSTEM FOR INTERNET PROCESSOR AND WEB OPERATING ENVIRONMENT RESEAU SYNCHRONE UNIVERSEL POUR PROCESSEUR INTERNET SYSTEME DE ENVIRONNEMENT DE FONCTIONNEMENT INTERNET Patent Applicant/Assignee: STANFORD SYNCOM INC, 2390 Walsh Avenue, Santa Clara, CA 95051, US, US (Residence), US (Nationality) Inventor(s): TRANS Francois, 1504 Clay Drive, Los Altos, CA 94024, US Legal Representative: MCNELIS John T, Fenwick & West LLP, Two Palo Alto Square, Palo Alto, CA Patent and Priority Information (Country, Number, Date): WO 200062470 A1 20001019 (WO 0062470) Patent: WO 2000US10101 20000414 (PCT/WO US0010101) Application: Priority Application: US 99129314 19990414; US 99417528 19991013; US 99444007 19991119; US 99170455 19991213; WO 68US42 20000315 Designated States: (Protection type is "patent" unless otherwise stated - for applications prior to 2004) AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG (AP) GH GM KE LS MW SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 97387

Fulltext Availability: Detailed Description

# Detailed Description

... enhance the channel Inter-symbol Interference (ISI) and Cross Talk noise suppression for wireline and Multipath Noise and Fading Suppression for wireless applications, as illustrated in Figure 04.

To demonstrate the...of new QoS and controls technologies. The reconfigurable DSP structures of the design to increase speeds and to deliver real-time, robust and deterministic multiple-access, and intelligence transport protocols, which...

17/3,K/10 (Item 7 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2004 WIPO/Univentio. All rts. reserv.

00456834 \*\*Image available\*\*

A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR SWITCHED TELEPHONY COMMUNICATION

# SYSTEME PROCEDE ET ARTICLE CONCU POUR LES COMMUNICATIONS TELEPHONIQUES PAR RESEAU COMMUTE

Patent Applicant/Assignee:

MCI WORLDCOM INC,

Inventor(s):

ZEY David A.

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9847298 A2 19981022

Application:

WO 98US7927 19980415 (PCT/WO US9807927)

Priority Application: US 97835789 19970415; US 97834320 19970415

Designated States:

(Protection type is "patent" unless otherwise stated - for applications

prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU

IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL

PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW

SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR

IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 156638

Fulltext Availability:

Detailed Description

Detailed Description

... wide range of customer populations and service requirements.

- 3. Redundant: The physical network model provides multiple paths of information flow across two network elements. Single points of failure are eliminated.
- 4. Transparent...the switch via another PSTN interface 258, or can egress the switch via a high-speed internet network interface 273. If the call egresses the switch via the PSTN interface 258...

17/3,K/11 (Item 8 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

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00443927

# A COMMUNICATION SYSTEM ARCHITECTURE

ARCHITECTURE D'UN SYSTEME DE COMMUNICATION

Patent Applicant/Assignee:

MCI WORLDCOM INC,

EASTEP Guido M,

LITZENBERGER Paul R,

OREBAUGH Shannon R,

ELLIOTT Isaac K,

STELLE Rick,

SCHRAGE Bruce,

BAXTER Craig A,

ATKINSON Wesley, KNOSTMAN Chuck,

CHEN Bing,

VANDERSLUIS Kristan,

Inventor(s):

EASTEP Guido M,

LITZENBERGER Paul R,

OREBAUGH Shannon R,

ELLIOTT Isaac K,

STELLE Rick,

SCHRAGE Bruce,

BAXTER Craig A,

ATKINSON Wesley, KNOSTMAN Chuck,

CHEN Bing,

```
VANDERSLUIS Kristan,
  JUN Fang DI,
Patent and Priority Information (Country, Number, Date):
                        WO 9834391 A2 19980806
  Patent:
                        WO 98US1868 19980203 (PCT/WO US9801868)
 Application:
  Priority Application: US 97794555 19970203; US 97794114 19970203; US
    97794689 19970203; US 97807130 19970210; US 97798208 19970210; US
    97795270 19970210; US 97797964 19970210; US 97800243 19970210; US
    97798350 19970210; US 97797445 19970210; US 97797360 19970210
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM
  GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX
 NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH
  GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI
  FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 156226
Fulltext Availability:
  Detailed Description
Detailed Description
... 3 kbits.
  ITU G.728 Recommendation for coding of speech at 16kbit/s using low
  delay code excited linear prediction (LD-CELP)
  ITU H.221 Frame Structure for a 64 to...wide range of customer
  populations and service requirements.
  3. Redundant: The physical network model provides multiple
                                                                paths of
  information flow across two network elements. Single points of failure
  are eliminated.
  4. Transparent...Interface 258.
  In the case where the call egresses the switch 221 on a high speed
  interface 272, the switch 221 attaches the PSTN Interface 257 to the DSP
  resource...
               (Item 9 from file: 349)
 17/3,K/12
DIALOG(R) File 349: PCT FULLTEXT
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00278984
SYSTEM FOR LOCATING A SOURCE OF BURSTY TRANSMISSIONS
SYSTEME DE LOCALISATION D'UNE SOURCE D'EMISSIONS EN RAFALES
Patent Applicant/Assignee:
  ASSOCIATED RT INC,
Inventor(s):
  STILP Louis A,
  KNIGHT Curtis A,
  WEBBER John C,
Patent and Priority Information (Country, Number, Date):
                        WO 9427161 A1 19941124
  Patent:
                        WO 94US4661 19940428 (PCT/WO US9404661)
  Application:
  Priority Application: US 9359248 19930507; US 94212552 19940311
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KG KP KR KZ LK LU
  LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK TJ TT UA UZ VN AT BE CH
  DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE
  SN TD TG
```

Publication Language: English Fulltext Word Count: 20260 Fulltext Availability: Claims Claim ... points being spaced at prescribed increments of latitude and longitude; (2) calculating theoretical values of time for a plurality of pairs of antenna sites; (3) calculating a least squares difference value based on the theoretical time delays and measured time delays for a plurality of pairs of antenna sites; (4) searching the grid of theoretical points... ...x and y, said quality factor being an estimated measure of the degree to which multipath or other anomalies may have affected a particular delay measurement. 113. A system as recited effects of multipath may be reduced. 114. A system as recited in claim 105, comprising 15 velocity estimation means for: (1) creating a grid of theoretical points covering a prescribed range of velocities... ...plurality of pairs of antenna sites; (4) searching the entire grid of theoretical points and determining the best theoretical velocity for which the value of least squares difference is minimized; and (5) starting at the...points being spaced at prescribed increments of latitude and longitude; (2) calculating theoretical values of time 15 for a plurality of pairs of antenna sites; (3) calculating a least squares difference (LSD) value based on the theoretical time delays and measured time delays for a plurality of pairs of antenna sites; (4) searching the entire grid of theoretical... ...x and y, said quality factor being an estimated measure of the degree to which multipath or other anomalies may have affected a particular delay measurement. 124. A method as recited... ...edges of said responsive signal. 125. A method as recited in claim 117, comprising 15 estimating the velocity of said mobile transmitter by performing the following steps: (1) creating a grid of theoretical... ...of pairs of

...of pairs of

25 antenna sites;

(4) searching the entire grid of theoretical points and determining the best theoretical velocity for which the value of LSD is minimized; and

(5) starting at the best theoretical...

17/3,K/13 (Item 10 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.

```
CELLULAR TELEPHONE LOCATION SYSTEM
SYSTEME DE LOCALISATION DE TELEPHONES CELLULAIRES
Patent Applicant/Assignee:
 ASSOCIATED RT INC,
Inventor(s):
 STILP Louis A,
 KNIGHT Curtis A,
 WEBBER John C,
Patent and Priority Information (Country, Number, Date):
                       WO 9427160 A1 19941124
 Patent:
                       WO 94US816 19940119 (PCT/WO US9400816)
 Application:
 Priority Application: US 9359248 19930507
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
 AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB HU JP KP KR KZ LK LU LV MG
 MN MW NL NO NZ PL PT RO RU SD SE SK UA UZ VN AT BE CH DE DK ES FR GB GR
 IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 13924
Fulltext Availability:
 Claims
Claim
... baseband signals on the
 basis of the filtered upper and lower sideband signals,
                telephone location system as
  6 A cellular
  recited in claim 1, comprising:
  first receiver means at a first cell site for
  receiving a cellular telephone signal;
 demodulator means at said first cell site for
 demodulating the received cellular telephone signal at said
 first cell site to produce a demodulated digital bit stream;
 first modulator...
...at said first cell site
 for modulating the demodulated digital bit stream to
  reconstruct the cellular
                            telephone signal as it was
  originally transmitted, whereby a first reconstructed
            telephone signal is produced;
  first cross-correlator means at said first
  cell site for cross-correlating said reconstructed signal
  against the cellular telephone signal received at said first
  cell site to produce a first peak indicative of a time of
  arrival of the cellular
                            telephone signal at the first cell
 site:
 means for determining the time of arrival of
 the cellular telephone signal at the first cell site on the
 basis of said first peak and producing...
...for modulating the demodulated digital bit stream at the
  second cell site to reconstruct the cellular telephone signal
  as it was first transmitted by the cellular telephone,
  whereby a second reconstructed cellular
                                           telephone signal is
  produced;
  second receiver means at said second cell site
                               telephone signal;
  for receiving said cellular
  second cross-correlator means at said second
  cell site for cross-correlating the second reconstructed
  signal against the cellular telephone signal received at the
  second cell site to produce a second peak indicative of a
  time of arrival of the cellular telephone signal at the
```

second cell site;

means for determining the time of arrival of

the cellular telephone signal at the second cell site on the basis of said second peak and producing ...data on the basis of said

first
and second time of arrival data,
70 A cellular telephone location system as
recited in claim 1, comprising location estimation means for:
(1) creating a...

...points being

spaced at prescribed increments of latitude and longitude;

(2) calculating theoretical values of time delay

for a plurality of pairs of cell sites;

(3) calculating a least squares difference (LSD)

value based on the theoretical time delays and measured time delays for a plurality of pairs of cell sites;

(4) searching the entire grid of theoretical...

...longitude to within a prescribed number of degrees or fraction of a degree.

8e A cellular telephone location system as recited in claim 7, wherein said calculating step (2) comprises accounting for...

...or environmental factors, said site biases determined by periodically calcula ting the positions of reference cellular transmitters at known locations, 96 A cellular telephone location system as recited in claim 7, wherein said least squares difference is given by...

...x and y, said quality

factor being an estimated measure of the degree to which multipath or other anomalies may have affected a particular delay measurement.

10e A cellular telephone location system as recited in claim 7, further comprising means for detecting a first leading edge of a cellular telephone signal and rejecting subsequent leading edges of said cellular telephone signal, whereby the effects of multipath may be reduced, lle A cellular telephone location system as recited in claim 1, comprising velocity estimation means for:

(1) creating a grid of theoretical points covering a prescribed range of velocities...

...plurality of pairs of

cell sites;

(4) searching the entire grid of theoretical points and determining the best theoretical velocity for which the value of LSD is minimized; and

(5) starting at ...least-squares

iteration to resolve the actual velocity to within a prescribed tolerance,

12\* A cellular telephone location system as recited in claim 1, further comprising a database for storing location data identifying the cellular telephones and their respective locations, and means for providing access to said database to subscribers at...

17/3,K/14 (Item 11 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00274199

SYSTEM AND METHOD FOR EXTERNAL ACOUSTIC BONE VELOCITY MEASUREMENT
SYSTEME ET PROCEDE DE MESURE EXTERNE DE LA VITESSE D'ONDES ACOUSTIQUES DANS
DES OS

Patent Applicant/Assignee:
 OSTEO SCIENCES CORPORATION,
Inventor(s):

WHITNEY Hartwell H, LAUDENSLAGER Roy E,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9422375 A1 19941013

Application: WO 94US3830 19940407 (PCT/WO US9403830)

Priority Application: US 9343870 19930407

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English Fulltext Word Count: 7247

Fulltext Availability: Detailed Description

Detailed Description

... time of a sound pulse

from the transmitter to the receiver can be used to **determine** bone **velocity**. It is known to use both continuous waves and pulsed waves to drive the transmitting...

...approach,

however,, the phase shift between the two signals can be used to determine the **time delay** of propagation. Id. However, determining the phase shift can involve ambiguity in the number of...

...pulses or the continuous wave

5 approach, furthermore, there is inherent difficulty in dealing with multipath . That is, there is typically more than one path for a waveform to reach the receiving transducer, Finding the transmitted waveform, over the path of choice at the receiver poses difficulties for the designer, Summary of the Invention The present invention overcomes problems in the prior art in finding the transmitted waveform over the path of choice at the receiver, and provides in various embodiments a convenient system and method for bone velocity measurement, In one embodiment, the invention provides a system for externally measuring in a vertebrate subject the velocity of an acoustic wave in a bone that has a longitudinal axis. The system in...bone, A signal processing arrangement in communication with the second transducer and the signal excitér determines the velocity of the acoustic

## ...signal

processing arrangement in communication with the second and third transducers and the signal exciter determines the velocity of the acoustic wave in the bone. The processing arrangement includes means for effectively determining...

wave in the bone, The angle of the axes of the transducers...

...and

second transducers from that between the first and third transducers in the course of **determining** the **velocity** between the second and third transducers, so as to reduce by cancellation the error in...

...and

second transducers from that between the third and first transducers in the course of **determining** the **velocity** between the second and third transducers and (ii) and arrangement for averaging the velocity determinations...

17/3,K/15 (Item 12 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

utilized by the GPS receiver 706 to derive the vehicle

velocity, The rationale for discarding the vehicle

velocity is that...accurate than

the velocities derived from the CIA code, In the preferred embodiment, the first **estimated** position (and vehicle **velocity** if derived from the carrier frequency) are encoded on CPS Signal 716 and sent on...

...from the CIA code, data may be retrieved from the carrier frequency by the CPS receiver 706 at approximately 50 Hz (not approximately 2 Hz, as is the case for demodulating...

...is shown that the CPS Kalman filter 802 requests and decodes data from the CPS receiver 706, which data is routed through an IPROTO function 804 shown at a flowchart block...scheme is that the first position estimate is inherently more accurate than the second position estimate from the IRU 904, However, velocity can be more accurately determined by the IRU, Therefore, the velocity component of the IRU signal 910 can be weighted heavier than the velocity component of...

```
21/3,K/1
              (Item 1 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
01529159
Search window delay tracking in code division multiple access communication
    systems
Suchfensterverzogerungsnachfuhrung in einem Kodemultiplexvielfachzugriffsub
    ertragungssystem
Surveillance du retard d'une fenetre de recherche dans des systemes de
    communication a acces multiple par repartition de codes
PATENT ASSIGNEE:
  Telefonaktiebolaget L M Ericsson (Publ), (213764), , 126 25 Stockholm,
    (SE), (Applicant designated States: all)
INVENTOR:
  Klein, Oliver, Hugo-Distler-Strasse 46, 90411 Nurnberg, (DE)
  Held, Ingolf, Afdener Strasse 16, 52134 Herzogenrath, (DE)
LEGAL REPRESENTATIVE:
  HOFFMANN - EITLE (101511), Patent- und Rechtsanwalte Arabellastrasse 4,
    81925 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 1276248 Al 030115 (Basic)
APPLICATIÓN (CC, No, Date):
                             EP 2002014899 020705;
PRIORITY (CC, No, Date): US 901571 010711
DESIGNATED STATES: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR;
  IE; IT; LI; LU; MC; NL; PT; SE; SK; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04B-001/707
ABSTRACT WORD COUNT: 149
NOTE:
  Figure number on first page: 3
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                          Update
                                     Word Count
      CLAIMS A (English) 200303
                                      1696
                          200303
                                      6759
      SPEC A
                (English)
                                      8455
Total word count - document A
Total word count - document B
                                   8455
Total word count - documents A + B
... SPECIFICATION the signal transmission from the transmitter.
    The Doppler frequency may be determined in the RAKE receiver using
                   coefficients from each RAKE/demodulator finger. One
  complex channel
  example algorithm that may be employed is described in...
...assigned U.S. Patent Application Serial No. 09/812,956, entitled "Method
  and Apparatus for Estimating Doppler Speed, "filed on March 27, 2001,
  the contents of which are incorporated herein by reference. In...
...spectrum," paths arriving with the highest Doppler frequency contribute
  the highest energy to the RAKE receiver .
    As described in the background, it is difficult to keep the channel
  impulse response within...
```

21/3,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

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### 01319647

Method for tracking a time-variant channel impulse response

Verfahren zur Nachfuhrung einer zeitvarianter Kanalimpulsantwort

Procede de poursuite d'une reponse impulsionelle de canal qui varie dans le
temps

PATENT ASSIGNEE:

LUCENT TECHNOLOGIES INC., (2143720), 600 Mountain Avenue, Murray Hill,

```
New Jersey 07974-0636, (US), (Applicant designated States: all)
INVENTOR:
  Gerstacker, Wolfgang Helmut, Winner Zeile 20, 90482 Nurnberg, (DE)
 Meyer, Raimund, Rothenbacher Hauptstrasse 53, 90449 Nurnberg, (DE)
  Obernosterer, Frank Gerhard, Kleewiensenweg 1, 91367 Weissenhohe, (DE)
LEGAL REPRESENTATIVE:
 Watts, Christopher Malcolm Kelway, Dr. et al (37391), Lucent Technologies
    (UK) Ltd, 5 Mornington Road, Woodford Green Essex, IG8 OTU, (GB)
PATENT (CC, No, Kind, Date): EP 1128618 A2 010829 (Basic)
                              EP 2000304646 000531;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): EP 2000301555 000228
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H04L-025/02
ABSTRACT WORD COUNT: 125
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
                                     Word Count
                           Update
Available Text Language
                           200135
                                      684
     CLAIMS A (English)
                (English) 200135
      SPEC A
                                      2748
Total word count - document A
                                      3432
Total word count - document B
                                         0
Total word count - documents A + B
                                      3432
...SPECIFICATION the first N time slots of a data block a training sequence
 known by the receiver is transmitted. Use is frequently made, in
  current mobile radio systems, of correlative channel estimation...
...L - 1). By reason of the channel pulse response varying with time,
  especially at high velocities (Doppler-Spread), the initially detected
  channel estimations often can not be used for equalizing the received
  signal in the whole data block. Therefore, during processing a data
  block, initially estimated channel pulse response coefficients for
  equalizing the received signals must be tracked continuously.
     Using for instance a trellis-based...
 21/3,K/3
              (Item 3 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
01291321
Apparatus and method for digital data transmission
Vorrichtung und Verfahren zur digitalen Datenubertragung
Dispositif et procede de transmission de donnees numeriques
PATENT ASSIGNEE:
  Terayon Communication Systems, Inc., (2769080), 2952 Bunker Hill Lane,
    Santa Clara, CA 95054, (US), (Applicant designated States: all)
INVENTOR:
  Rakib, Selim Shlomo, 10271 West Acres,, Cupertino, California 95014, (US)
  Azenkot, Yehuda, 1128 Littleoak Circle, San Jose, California 95129, (US)
LEGAL REPRESENTATIVE:
  Brax, Matti Juhani (85201), Berggren Oy Ab, P.O. Box 16, 00101 Helsinki,
    (FI)
PATENT (CC, No, Kind, Date): EP 1107598 A2 010613 (Basic)
                              EP 1107598 A3 020116
                              EP 2001104542 960725;
APPLICATION (CC, No, Date):
PRIORITY (CC, No, Date): US 519630 950825; US 588650 960119; US 684243
    960719
DESIGNATED STATES: BE; DE; FR; GB; IE; NL
RELATED PARENT NUMBER(S) - PN (AN):
  EP 858695 (EP 96927270)
```

INTERNATIONAL PATENT CLASS: H04N-007/173; H04L-012/28; H04J-011/00;

H04J-013/02; H04J-003/06; H04B-001/707; H04L-005/02 ABSTRACT WORD COUNT: 143 NOTE: Figure number on first page: 49 LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY: Update Word Count Available Text Language CLAIMS A (English) 200124 2110 67900 SPEC A (English) 200124 70010 Total word count - document A Total word count - document B 0 70010 Total word count - documents A + B ...SPECIFICATION circuitry during the preamble for each timeslot to establish the values for the amplitude and phase error correction coefficients for use in receiving the payload data for that timeslot, see the discussion of the... 21/3,K/4 (Item 1 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2004 WIPO/Univentio. All rts. reserv. 01129704 DEAD NOZZLE COMPENSATION COMPENSATION D'UNE BUSE HORS ETAT DE FONCTIONNEMENT Patent Applicant/Assignee: SILVERBROOK RESEARCH PTY LTD, 393 Darling Street, Balmain, New South Wales 2041, AU, AU (Residence), AU (Nationality), (For all designated states except: US) Patent Applicant/Inventor: WALMSLEY Simon Robert, Silverbrook Research Pty Ltd, 393 Darling Street, Balmain, New South Wales 2041, AU, AU (Residence), AU (Nationality), (Designated only for: US) JACKSON PULVER Mark, Silverbrook Reseach Pty Ltd, 393 Darling Street, Balmain, New South Wales 2041, AU, AU (Residence), AU (Nationality), (Designated only for: US) PLUNKETT Richard Thomas, Silverbrook Research Pty Ltd, 393 Darling Street, Balmain, New South Wales 2041, AU, AU (Residence), AU (Nationality), (Designated only for: US) SHIPTON Gary, Silverbrook Research Pty Ltd, 393 Darling Street, Balmain, New South Wales 2041, AU, AU (Residence), GB (Nationality), (Designated only for: US) SILVERBROOK Kia, Silverbrook Research Pty Ltd, 393 Darling Street, Balmain, New South Wales 2041, AU, AU (Residence), AU (Nationality), (Designated only for: US) LAPSTUN Paul, Silverbrook Research Pty Ltd, 393 Darling Street, Balmain, New South Wales 2041, AU, AU (Residence), NO (Nationality), (Designated only for: US) Legal Representative: SILVERBROOK Kia (agent), Silverbrook Research Pty Ltd, 393 Darling Street, Balmain, New South Wales 2041, AU, Patent and Priority Information (Country, Number, Date): WO 200450369 A1 20040617 (WO 0450369) Patent: WO 2003AU1616 20031202 (PCT/WO AU03001616) Application: Priority Application: AU 2002953134 20021202; AU 2002953135 20021202 Designated States: (Protection type is "patent" unless otherwise stated - for applications

prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM

DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC

LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU

SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE

SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

```
(AP) BW GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 387411
Fulltext Availability:
 Claims
Claim
... be set to a value that will allow for expected frequency of bit
  stuffing and receiver response timing.
  Table 79. ISIShortReplyWin register format
  Field Name: Bit(s) Wrii:6 access Descri...
...be set to a value that will allow for expected frequency of bit stuffing
  and receiver response timing.
  O Table 80. ISILongReplyWin register format
  File id Nar6e E@t(s), Write...to 10 driver
  gpio i[31:0] 32 In General purpose 10 input from 10 receiver
  gpio-e[31:0] 32 Out General purpose 10 output control. Active high
  driving
  GPIO...
...1
 GPIO to IS[
  qpio-isi-din[1:0] 2 Out Input data from 10 receivers to ISI.
  gpio-dout[1:0] 2 In Data output from ISI to 10...
21/3, K/5
              (Item 2 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
            **Image available**
00934028
NONINVASIVE MEASUREMENTS OF CHEMICAL SUBSTANCES
MESURE NON EFFRACTIVE DE SUBSTANCES CHIMIQUES
Patent Applicant/Inventor:
 ABREU Marcio Marc, 3304 Dixwell Avenue, North Haven, CT 06473, US, US
    (Residence), US (Nationality)
Legal Representative:
  SCHERER Jonathan L (agent), Jacobson Holman, PLLC, 400 Seventh Street,
    N.W., Washington, DC 20004, US,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 200267688 A1 20020906 (WO 0267688)
 Application:
                        WO 2001US22607 20010820 (PCT/WO US0122607)
 Priority Application: US 2001790653 20010223
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
 AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
 EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
 LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL
  TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 107269
Fulltext Availability:
  Detailed Description
```

Detailed Description

of channels (trabecular meshwork, Schlemm's canal and venous system). The basic disorder in most glaucoma patients...is decreased since the piezoelectric material is affected by small changes in temperature and the velocity with which the force is applied. There are also contact lens tonometers which utilize

6...the contact device to evaluate blood flow and the signal radio transmitted to an external receiver. The Doppler flowmeters may also use ultrasonic transducers and these systems can be fabricated in miniature electronic packages and mounted in the contact device with signals transmitted to a remote receiver.

Illumination of vessels, through the pupil, in the back of the eye can be

In cases of abnormal heart rhythm, the **receiver** would be carried by the individual and will have means to alert the individual through...

used...the heart, respiration, flow, vocal and the environment can be

...emits infrared light though the intervening eyelid tissue reaching suitable receptor photodiodes or suitable optical receivers connected to a power on or off circuit. This allows quadriplegics to turn on, turn would then be transmitted to a receiver coupled with an alarm circuit and speaker creating a sound signal to alert the individual...temperature increase.

Another embodiment concerning therapy of eye and systemic disorders include a neurostimulation transmission **device** (NSTD) which relates to a system in which radio activated micro-photodiodes or/and micro...

- ...of the eye. The system also comprises a contact device in which a microminiature blood **velocity** -sensitive radio frequency transensor is mounted in the contact device which in turn is placed...coupled with miniature microprocessor mounted in the contact device. The transensors mounted in the contact **device** can be **remotely** driven by ultrasonic waves or alternatively remotely powered by electromagnetic waves or by incident light...
- ...physiologic data signal from the transducers may be frequency modulated and then transmitted to a **remote** external reception **unit** which demodulates and reconstitutes the transmitted frequency modulated data signal preferably followed by a low...
- ...preferably as a coded and modulated signal.

sensed and transmitted to a receiver .

- The apparatus of the invention preferably includes a receiver which receives the coded and modulated signal, an amplifier and low pass filter, a demultiplexer, a data processing device, a display and recording equipment, and preferably an information receiver, a CPU, a modem, and telephone connection. A microprocessor unit containing an autodialing telephone modem...
- ...used, the contact device houses a radio frequency transmitter which sends the biosignals to a receiver located nearby with the signals being processed and digitized for storage and analysis by microcomputer ...in water from the contact device can be preferably accomplished using sound energy with a receiver preferably io using a hydrophone crystal followed by conventional audio frequency FM decoding.

It is...

...LED can be mounted in the contact device and transmit modulated signals to remotely placed **receivers** with the light emitted from the LED being modulated by the signal.

When using this embodiment, the contact device in the **receiver** unit has the following components: a built in infrared light emitter (950 nm), an infrared...

- ...decoded, processed, and recorded. The light transmitted from the LED is received at the optical **receiver** and transformed into electrical signals with subsequent regeneration of the biosignals. Infrared light is reflected...
- transmitted using modulated sound signals with the sound waves being transmitted to a remote **receiver**. There is a relatively high absorption of ultrasonic energy by living tissues, but since the...
- ...not the preferred embodiment since they can take different paths from their source to a **receiver** with multiple reflections that can alter the final signal. Furthermore, it is difficult to transmit **receiver**, with the signal being subsequently decoded, separated into three parts, filtered and regenerated as the...
- ...chosen according to the biological or biophysical event to be transmitted.

A variety of signal receivers can be used such a frame aerial connected to a conventional FM receiver from which the signal is amplified decoded and processed. Custom integrated circuits will provide the...

- ...supplied from a power cell activated by a micropower control switch contained in the contact **device** or can be **remotely** activated by radio frequency means, magnetic means and the like. Inductive radio frequency powered telemetry...
- ...technology and more sophisticated encoding methods io as well as microminiature integrated circuits amplifiers and receivers are expected to occur and can be housed in the contact device. It is understood that a variety of transmitters, receivers, and antennas for transmitting and receiving signals in telemetry can be used in the apparatus of the invention, and housed in the contact device and/or placed remotely for receiving, processing, and analyzing the signal.

The fluid present on the front surface of...with enzymatic reactions providing an electrical current which can be radio transmitted to a remote **receiver** providing continuous data on the concentration of species in the tear fluid or surface of...

...of glucose, are subsequently converted to a frequency audio signal and transmitted to a remote **receiver**, with the current being proportional to the glucose concentration according to calibration factors.

The signals can be transmitted using the various transmission systems previously described with an externally placed **receiver** demodulating the audio frequency signal to a voltage and the glucose concentration being calculated from...

- ...subsequently displayed on a LED display. An interface card can be used to connect the **receiver** with a computer for further signal processing and analysis. During oxidation of glucose by glucose...cardinal positions in a pie like configuration, with each sensor transmitting its signal to a **receiver**. For example, if four biological variables are being detected simultaneously the four sensors signals A, B, C, and D are simultaneously transmitted to one or more **receivers**. Any device utilizing the tear fluid to non-invasively measure the blood components and signals transmitted to a **remote** station can be used in the
  - apparatus of the invention. Preferably a small contact...
- ... As the signal from passive transmitters falls off extremely rapidly with distance, the antenna and **receiver** should be placed near to the contact device such as in the frame of regular...

```
21/3,K/6
             (Item 3 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00749027
           **Image available**
UNIVERSAL SYNCHRONOUS NETWORK SYSTEM FOR INTERNET PROCESSOR AND
                                                                        WEB
    OPERATING ENVIRONMENT
              RESEAU SYNCHRONE UNIVERSEL POUR PROCESSEUR INTERNET ET
SYSTEME DE
    ENVIRONNEMENT DE FONCTIONNEMENT INTERNET
Patent Applicant/Assignee:
  STANFORD SYNCOM INC, 2390 Walsh Avenue, Santa Clara, CA 95051, US, US
    (Residence), US (Nationality)
Inventor(s):
  TRANS Francois, 1504 Clay Drive, Los Altos, CA 94024, US
Legal Representative:
  MCNELIS John T, Fenwick & West LLP, Two Palo Alto Square, Palo Alto, CA
Patent and Priority Information (Country, Number, Date):
                       WO 200062470 A1 20001019 (WO 0062470)
 Patent:
 Application:
                        WO 2000US10101 20000414 (PCT/WO US0010101)
  Priority Application: US 99129314 19990414; US 99417528 19991013; US
    99444007 19991119; US 99170455 19991213; WO 68US42 20000315
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
 AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH
  GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN
 MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 97387
Fulltext Availability:
 Detailed Description
Detailed Description
... directly computed from the received signal samples using the least
 square algorithm without going through channel estimations. In both
  algorithms, a I O sequence of training symbols is used for initializing
21/3, K/7
              (Item 4 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00371478
METHOD FOR THE IDENTIFICATION AND THERAPEUTIC USE OF DISEASE-ASSOCIATED
    ORGANISMS, ELEMENTS AND FORCES
        D'IDENTIFICATION ET D'UTILISATION THERAPEUTIQUE D'ORGANISMES,
    D'ELEMENTS ET DE FORCES ASSOCIES A UNE MALADIE
Patent Applicant/Assignee:
  CHACHOUA Samir,
Inventor(s):
  CHACHOUA Samir,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 9712220 A2 19970403
                        WO 96IB1006 19960913 (PCT/WO IB9601006)
 Application:
  Priority Application: US 953686 19950915
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  AL AM AU BB BG BR CA CN CU CZ EE FI GE HU IS JP KE KG KP KR LK LR LT LV
```

MD MG MK MN MW MX NO NZ PL RO SG SI SK TR TT UA UZ VN KE LS MW SD SZ UG AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English Fulltext Word Count: 267093

Fulltext Availability: Detailed Description

Detailed Description

... and viral release is higher in aggressive viruses than in synergistic ones.

A times aggression coefficient can be defined whereby studies ...THERE CAN EXIST MULTIPLE LEVELS OF CLASSIFICATION, EXAMPLES OF SUCH A SYSTEM FOLLOW; LEVEL @ 1 @

EVALUATION OF EFFECT OF ENTIRE ORGANISM DIRECTLY ON DISEASEE
SUCH EVALUATION CAN BE CONDUCTED IN-vrTRO...

```
4/3, K/1
            (Item 1 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
01113234
Method and apparatus for rejecting rain clutter in a radar system
                                     Regen-Clutter-Beseitigung fur eine
                                zur
                Vorrichtung
Verfahren und
    Radarsystem
Procede et appareil pour la suppression des echos parasites de pluie dans
    un systeme Radar
PATENT ASSIGNEE:
  Eaton VORAD Technologies, L.L.C., (2101740), 10802 Willow Court, San
    Diego, California 92127, (US), (Applicant designated States: all)
INVENTOR:
  McDade, James Clement, 14521 Maplewood Street, Poway, California
    92064-6449, (US)
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    92131-1552, (US)
  Bohley, Eric Paul, 3620 Terra de Dios, Escondido, California 92025-7858,
    (US)
  Schlichtig, Roger John, 103 N. Coast Highway 101, Apt 157, Encinitas,
    California 92024, (US)
LEGAL REPRESENTATIVE:
  Burke, Steven David et al (47741), R.G.C. Jenkins & Co. 26 Caxton Street,
    London SW1H ORJ, (GB)
                             EP 974851 A2 000126 (Basic)
PATENT (CC, No, Kind, Date):
                              EP 974851 A3
                                            010314
APPLICATION (CC, No, Date):
                              EP 99305811 990722;
PRIORITY (CC, No, Date): US 122479 980723
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G01S-013/93; G01S-013/34
ABSTRACT WORD COUNT: 250
NOTE:
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A (English) 200004
                                      1063
                (English)
                          200004
                                      8476
      SPEC A
Total word count - document A
                                      9539
Total word count - document B
Total word count - documents A + B
                                      9539
...SPECIFICATION 0 signal data to the channel 1 signal data. From this
  information, the DSP can calculate the range and relative speed of a
  target. The determination of the range and relative speed is directly
  calculated by multiplying the frequency and phase difference by
  fixed factors, since the phase is linearly proportional to range of the
  target according to the formula, R = C * ()/(4...
```

- ...the range formula, R is the range to the target in feet, C is the speed of light in feet/second, fl is the frequency of the transmitted channel 0 signal, and f2...
- ...Doppler phenomenon, and V is the relative velocity of the target with respect to the **transceiver**. However, in alternative embodiments, other means to map the frequency to a relative speed and...

24/3,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.

MULTI-FREQUENCY, MULTI-TARGET VEHICULAR RADAR SYSTEM USING DIGITAL SIGNAL PROCESSING

MEHRFACHFREQUENZ-, MEHRFACHTARGETFAHRZEUGRADARSYSTEM MIT DIGITALER SIGNALVERARBEITUNG

SYSTEME RADAR DE VEHICULE A CIBLES ET FREQUENCES MULTIPLES UTILISANT UN TRAITEMENT DE SIGNAUX NUMERIQUES

PATENT ASSIGNEE:

VORAD SAFETY SYSTEMS, INC., (1766720), 10802 Willow Court, San Diego, CA 92127, (US), (Proprietor designated states: all)

INVENTOR:

ASBURY, Jimmie, R., 409 Palm Avenue, A-21, Imperial Beach, CA 91932, (US)

WOLL, Bryan, D., 2 Flamingo Court, Laguna Niguel, CA 92677, (US) MALAN, Van, R., 3250 Via Marin 3, La Jolla, CA 92037, (US) LEGAL REPRESENTATIVE:

Allman, Peter John et al (27675), MARKS & CLERK, Sussex House, 83-85 Mosley Street, Manchester M2 3LG, (GB)

PATENT (CC, No, Kind, Date): EP 655141 A1 950531 (Basic)

EP 655141 A1 951220 EP 655141 B1 991027 WO 9404940 940303

APPLICATION (CC, No, Date): EP 94908067 930809; WO 93US7505 930809 PRIORITY (CC, No, Date): US 930066 920814

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: G01s-013/00; G01s-013/93; G01s-013/52;
G01s-013/58; G01s-013/32

NOTE:

No A-document published by EPO

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count CLAIMS B (English) 9943 1299 (German) 9943 CLAIMS B 1268 1438 CLAIMS B (French) 9943 (English) 9943 SPEC B 10146 Total word count - document A Total word count - document B 14151 Total word count - documents A + B 14151

- ...SPECIFICATION From the information transmitted to the microcontroller 510 from the DSP 508, the microcontroller 510 calculates the range and relative speed of each target. The determination of the relative speed and distance is directly calculated by multiplying the frequency and phase difference by fixed factors, since the phase is linearly proportional to distance to (or range of) the target according to the formula...
- ...miles/hour). In the range formula, R is the range in feet, C is the speed of light in feet/second, f1)) is the frequency of the channel 1 signal, and f2))is...
- ...Doppler phenomenon, and V is the relative velocity of the target with respect to the transceiver. However, in alternative embodiments, other means to map the frequency to a relative speed and...

24/3,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00319786

Optical fiber sensor.
Optischer Fibersensor.

Capteur a fibres optiques.

PATENT ASSIGNEE:

BROTHER KOGYO KABUSHIKI KAISHA, (431480), 35, 9-chome, Horita-dori

```
Mizuho-ku, Nagoya-shi, Aichi-ken, (JP), (applicant designated states:
    DE; FR; GB)
INVENTOR:
  Kondo, Michio Brother Kogyo K.K., 35, 9-chome Horita-dori Mizuho-ku,
    Nagoya-shi Aichi-ken, (JP)
LEGAL REPRESENTATIVE:
  Senior, Alan Murray et al (35711), J.A. KEMP & CO 14 South Square Gray's
    Inn, London WC1R 5EU, (GB)
PATENT (CC, No, Kind, Date): EP 321252 A2 890621 (Basic)
                              EP 321252 A3 900516
                              EP 321252 B1 930113
APPLICATION (CC, No, Date):
                              EP 88311890 881215;
PRIORITY (CC, No, Date): JP 87316497 871215; JP 87322242 871218; JP
    87335242 871229
DESIGNATED STATES: DE; FR; GB
INTERNATIONAL PATENT CLASS: G01B-009/02; G01D-005/26;
ABSTRACT WORD COUNT: 188
LANGUAGE (Publication, Procedural, Application): English; English
FULLTEXT AVAILABILITY:
                                     Word Count
Available Text Language
                           Update
      CLAIMS B (English)
                                     2426
                          EPBBF1
                                       392
      CLAIMS B
                (German)
                          EPBBF1
      CLAIMS B
                 (French)
                          EPBBF1
                                       506
      SPEC B
               (English)
                          EPBBF1
                                      5194
Total word count - document A
                                         O
Total word count - document B
                                      8518
Total word count - documents A + B
                                      8518
...CLAIMS subject (50, 88, 90), and returning said measuring and reference
      beams to said light transmitter/ receiver portion through said
      optical fiber in said second direction; and
        said sensor head portion (102...
...of said optical fiber, so that the measuring and reference beams are
      returned through said optical fiber in said second direction in
      said two transmission modes, as two linearly polarized beams having
     mutually perpendicular polarization planes and a phase
      of 90 (degree).
     14. An optical fiber sensor according to claim 13, wherein said light
 24/3.K/4
              (Item 1 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
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           **Image available**
00343161
DIFFERENTIAL RANGING FOR A FREQUENCY-HOPPED REMOTE POSITION DETERMINATION
    SYSTEM
TELEMETRIE
            DIFFERENTIELLE
                              POUR
                                     UN
                                          SYSTEME DE TELELOCALISATION EN
    FONCTIONNEMENT A SAUTS DE FREQUENCE
Patent Applicant/Assignee:
  NEXUS 1994 LIMITED,
Inventor(s):
  YOKEV Hanoch,
  PELEG Shimon,
  MEIMAN Yehouda,
  PORAT Boaz,
Patent and Priority Information (Country, Number, Date):
                        WO 9625673 A1 19960822
  Patent:
                        WO 96GB270 19960206 (PCT/WO GB9600270)
  Application:
  Priority Application: US 95389263 19950216
Designated States:
(Protection type is "patent" unless otherwise stated - for applications
prior to 2004)
  JP KR SG AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
```

```
Publication Language: English
Fulltext Word Count: 14161
Fulltext Availability:
 Claims
Claim
... no significant since tile demodulation is differential. The frequency
 difference is At'.
 Deslun of the Remote
                         Mobile
                                   Unit
  is generated
  In Figure 9, the modulating frequencN by the
  2-5 microprocessor 801 from...
...channels. Two separate converters are usc(i to operate in parallel. III
 order to ensure phase continuity between hops (tile phase
  between the
  5 two frequencies must remain between hops) we must base the double loop
  svrithesizer on DDS. (Direct Digital Synthesizer).
 Tile process of finding the phase difference between the two
  frequencies is based oil convolution of the two signals:
 A(p = arg( S...Frequency Inaccuracy as a Internal Source of Error
 The modulation of the dual frequency in the Remote Mobile
  (RMU) is done with a low cost oscillator which has a possible drift of
  100...
...2 5 error. The most difficult bias error to overcome is the timing error
 between receivers . It is obvious that even ail atornic reference clock
 with an accurac
  , of 10results in...
...I'k, + 1, ki 1 + 0.54, 4.0
 where
  k = 1.2 is the receiver number,
  10 I'ko is the range between the transmitter and the klh receiver at
 beginning of ...first hop.11A.1, is the velocity along LOS between the
  transmitter and the klh receiver
  at the beginning of the first hop:
  61,.o is the acceleration along LOS between the transmitter and the kth
  15 receiver at the beginning of the first hop,
  iver at the
  is the range between the...
...ith hop;
  I,,., is the velocity along LOS between the transmitter and the A-th
  receiver at the beginning of the ith hop.
  20 The two received sionals at the kfli receiver are
  2` ` explj2#... 0 - (1) + II-All (1) j4u)
 A/, 0) 2'1 explj2n@,, 0 (1) (T4h)
  15
  is the inverse of' the speed of light:
  and in,,(I) are the multipaths of' the two frequencies:
  0 (1) and are additive...
...the fact that the total transmitter power is divided bet%
  two fi-equcrIcies.
  Tile kth receiver generates two refffence signals whose instantalleOLIS
  5 phases are
  + Jj'n, i ) (1 - 0 + 6...
...ith hop. at which
  demodulation starts,
  6 t,., is the time bias of the kth receiver . the initial phase of the
```

reference signal of kth <code>receiver</code> at tile ith hop. 1 5 Note that the <code>receivers</code> are assumed to have "ideal" frequencies (zero frequency deviations), because tile reference signals are synthesized...during tile hops and to estimate tile initial range difference. Motion compensation depends on the <code>receivers</code> carrier frequencies being identical. If they cannot be made identical. this compensation will not be...0 < f < I - 1. Let il  $r = \exp 1j27ry r, j$ . Then, except for tile <code>receiver</code> synchronization errors 6 i ri , Is given by 20

Tj expti47C K,) (1'1.( - + f...

- ...Transform with interpolation) will be random. so this should not have much effect on the **estimate**. For example, if the **speed** is 30 m/s, the transmitter motion during '10 tile entire sequence of' hops is...
- ...a superposition of' several signals. corresponding to several propagation paths from the transmitter to the **receiver**. One of' these is the direct path. whose impulse response is assumed to be all...
- ...with a gain factor a and a zero delay (the nominal propagation delay to the receiver is immaterial. and call be ignored). All the rest are reflected paths. Each reflected path...
- ...renections. This happens when there is no line of sight between the transmitter and tile **receiver**, and the @,vavelength is too short for diffraction to have an effect.

  When the transmitted...We are interested in 5 short-term multipath in urban areas and mobile transmitters (or **receivers**). A common model for ce(-r,l) in such scenarios is as a Gaussian process...

24/3,K/5 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00256780

MULTI-FREQUENCY, MULTI-TARGET VEHICULAR RADAR SYSTEM USING DIGITAL SIGNAL PROCESSING

SYSTEME RADAR DE VEHICULE A CIBLES ET FREQUENCES MULTIPLES UTILISANT UN TRAITEMENT DE SIGNAUX NUMERIQUES

Patent Applicant/Assignee:
VORAD SAFETY SYSTEMS INC,
Inventor(s):
ASBURY Jimmie R,
WOLL Bryan D,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9404940 Al 19940303

Application: WO 93US7505 19930809 (PCT/WO US9307505)

Priority Application: US 9266 19920814

Designated States:

MALAN Van R,

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AU BR CA KR AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 13875

Fulltext Availability:

Detailed Description

# Detailed Description

... the inf ormation transmitted to the microcontroller 510 from the DSP 508, the microcontroller 510 calculates the range and relative speed of each target. The determination of the relative speed and distance is directly calculated by multiplying the frequency and phase difference by fixed factors, since the phase is linearly

proportional to distance to (or range of) the target according to the formula...

- ...miles/hour), In the range formula, R is the range in feet, C is the **speed** of **light** in feet/second,, f, is the frequency of the channel 1 signal, and f2 is...
- ...Doppler phenomenon, and V is the relative velocity of the target with respect to the **transceiver**. However, in alternative embodiments, other means to map the f requency to a relative speed...

```
(Item 1 from file: 348)
 26/3,K/1
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2004 European Patent Office. All rts. reserv.
01411881
Mobile communication base station equipment
Basisstationsanordnung fur mobile Funkkommunikation
Equipement pour une station de base pour radio communication mobile
PATENT ASSIGNEE:
  NTT DoCoMo, Inc., (3031180), 11-1, Nagatacho 2-chome, Chiyoda-ku, Tokyo
    100-6150, (JP), (Applicant designated States: all)
INVENTOR:
  Yamaguchi, Ryo, 2512-54, Issiki, Hayamacho, Miura-gun, Kanagawa 240-0111,
    (JP)
  Terada, Noriyoshi, 31-8, Ikedacho 3-chome, Yokosuka-shi, Kanagawa
    239-0806, (JP)
  Nojima, Toshio, 25-13, Highland 2-chome, Yokosuka-shi, Kanagawa 239-0833,
    (JP)
LEGAL REPRESENTATIVE:
  Hoffmann, Eckart, Dipl.-Ing. (5571), Patentanwalt, Bahnhofstrasse 103,
    82166 Grafelfing, (DE)
PATENT (CC, No, Kind, Date):
                              EP 1193792 A2 020403 (Basic)
                              EP 1193792 A3 030604
APPLICATION (CC, No, Date):
                              EP 2001123595 011001;
PRIORITY (CC, No, Date): JP 2000301895 001002; JP 2000301896 001002; JP
    200152659 010227
DESIGNATED STATES: DE; FR; GB; IT
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: H01Q-001/24; H01Q-003/24; H01Q-003/26;
  G01S-003/02; H04Q-007/38
ABSTRACT WORD COUNT: 148
NOTE:
  Figure number on first page: 5A
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
                                     Word Count
Available Text Language
                           Update
      CLAIMS A (English)
                          200214
                                      1561
                          200214
                                     11105
      SPEC A
                (English)
Total word count - document A
                                     12666
Total word count - document B
                                         0
Total word count - documents A + B
                                     12666
...INTERNATIONAL PATENT CLASS: H04Q-007/38
...SPECIFICATION direction on which the mobile station is located is
  detected on the basis of a phase difference between received signals
```

- ...SPECIFICATION direction on which the mobile station is located is detected on the basis of a **phase difference** between received signals from the **receiver** 142 and the antenna 21-1, and a selection of either the right beam 35...
- ...158 in synchronism with the beam switching timing of the time slot.

  Because the transmitters/ receivers 143-1 to 143-M are assigned only to a mobile station which has been...
- ...and thus, the beam selection information detection system 154 is not connected to the transmitters/ receivers 143-1 to 143-M.

  Any one of the arrangements described above with reference to...
- ...CLAIMS finder receiver to measure the direction on which the mobile
- station is located from a phase difference between the both received signals.
- 15. A mobile communication base station equipment according to Claim...

26/3,K/2 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00824605 \*\*Image available\*\*

A NETWORK-BASED WIRELESS LOCATION SYSTEM TO POSITON AMPS (FDMA) CELLULAR TELEPHONES

SYSTEME DE POSITIONNEMENT SANS FIL BASE SUR UN RESEAU PERMETTANT DE LOCALISER DES TELEPHONES CELLULAIRES AMPS (AMRF)

Patent Applicant/Assignee:

CELL-LOC INC, Franklin Atrium, Suite 220, 3015 - 5th Avenue, N.E., Calgary, Alberta T2A 6T8, CA, CA (Residence), CA (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

FATTOUCHE Michel, 3627 Utah Drive, N.W., Calgary, Alberta T2N 4A6, CA, CA (Residence), CA (Nationality), (Designated only for: US)

KLUKAS Richard, 12 Edcath Road, N.W., Calgary, Alberta T3A 4A2, CA, CA (Residence), CA (Nationality), (Designated only for: US)

BORSODI Andrew, 1623 - 40 Street, S.W., Calgary, Alberta T3C 1X1, CA, CA (Residence), CA (Nationality), (Designated only for: US)

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Legal Representative:

LAMBERT Anthony R (agent), Thompson Lambert, Suite #103, 10328 - 81 Avenue, Edmonton, Alberta T6E 1X2, CA,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200158195 A1 20010809 (WO 0158195)

Application: WO 2000CA103 20000204 (PCT/WO CA0000103)

Priority Application: WO 2000CA103 20000204

Parent Application/Grant:

Related by Continuation to: US 98130637 19980806 (CIP); US 98130623 19980806 (CIP); US 98130724 19980806 (CIP); US 98130402 19980806 (CIP) Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English

Fulltext Word Count: 30781

Main International Patent Class: H04Q-007/38

## English Abstract

...the invention is to produce a network-based Wireless Location System (WLS) whereby existing Advanced Mobile Phone System (AMPs) Frequency Division Multiple Access (FDMA) Cellular Telephones (CTs) can be located passively without modification to the CTs or to the cellular antenna infrastructure. More specifically, the invention consists of methods and apparatus to estimate the position and velocity of a Cellular Telephone (CT) using either the Time Of Arrival (TOA) of a signal transmitted by the CT...

...either hyperbolic multilateration based on Time Difference Of Arrival (TDOA), or linear multiangulation based on **Phase Difference** Of Arrival (PDOA), or both. In order to solve for the velocity of the CT...

...or FOAs. Yet another important contribution is the use of IF-sampling techniques in the **receivers** at each MS in order to reduce the effect of noise and interference on the...

26/3,K/3 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00427555 \*\*Image available\*\*

DETERMINING DIRECTION OF A MOBILE TERMINAL IN A CELLULAR COMMUNICATION SYSTEM

DETERMINATION DE LA DIRECTION DE DEPLACEMENT D'UN TERMINAL MOBILE DANS UN SYSTEME DE COMMUNICATIONS CELLULAIRE

Patent Applicant/Assignee:

NORTHERN TELECOM LIMITED,

Inventor(s):

ZHANG Chang-Gang,

TONG Wen,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9818018 A1 19980430

-Application: WO 97CA130 19970226 (PCT/WO CA9700130)

Priority Application: US 96739078 19961024

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

CA JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English Fulltext Word Count: 5098

International Patent Class: H04Q-07:38

# English Abstract

...antennas (14, 26) spaced by a small distance (d) for receiving a signal from a mobile terminal, and two receivers (34, 36) coupled to the antennas for providing first and second received signals with a phase difference dependent upon a direction of the mobile terminal relative to the antennas. A nulling linear signal combiner (38-44) combines the received signals to determine the phase difference, and hence direction of the mobile terminal, using an adaptively adjusted complex weight Wk which is supplied via an arctangent function (50...

...determined from signal strength information available in the base station, identify the location of the mobile terminal. The location is itself useful information, and can be monitored over time to determine velocity of the mobile terminal and/or can be used to identify candidate terminals for handoff from a macrocell to...

```
30/3,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01343253

Positioning of a wireless terminal with satellite positioning signals or base station signals

Positionsbestimmung eines drahtlosen Terminals mit Satelliten-Positionierun gssignalen oder Bassistationssignalen

Determination de la position d'un terminal radioelectrique avec des signaux de position de satellites ou des signaux de stations de base PATENT ASSIGNEE:

LUCENT TECHNOLOGIES INC., (2143720), 600 Mountain Avenue, Murray Hill, New Jersey 07974-0636, (US), (Applicant designated States: all) INVENTOR:

Da, Ren, 250 Alexandria Way, Bernards Township, New Jersey 07920, (US) LEGAL REPRESENTATIVE:

Buckley, Christopher Simon Thirsk et al (28912), Lucent Technologies (UK) Ltd, 5 Mornington Road, Woodford Green, Essex IG8 0TU, (GB)

PATENT (CC, No, Kind, Date): EP 1148344 A1 011024 (Basic)

APPLICATION (CC, No, Date): EP 2000309825 001106;

PRIORITY (CC, No, Date): US 552898 000420

DESIGNATED STATES: DE; FR; GB

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI INTERNATIONAL PATENT CLASS: G015-005/14; H04Q-007/38

ABSTRACT WORD COUNT: 311

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication, Procedural, Application): English; English; English FULLTEXT AVAILABILITY:

Available Text Language Update Word Count
CLAIMS A (English) 200143 879
SPEC A (English) 200143 4954
Total word count - document A 5833
Total word count - document B 0
Total word count - documents A + B 5833

...INTERNATIONAL PATENT CLASS: H04Q-007/38

... SPECIFICATION time bias based on GPS information.

The estimated distance d(sup AND)ik)) between the wireless terminal and the base station can be determined from the location of the wireless terminal, which is obtained from the GPS, and the location of the base station which is...

- ...database. The time bias of the GPS bGPSij is obtained from signals received by the wireless terminal from the GPS satellites. When a GPS signal is detected, the phase of the replicated...
- ...time at the time of transmission is embedded in the satellite signal received by the wireless terminal. Subtracting the satellite clock time from the start time of the wireless terminal 's maximally correlating replicated code, and then multiplying the resultant by the speed of light will give the measured pseudorange. But, because of the presence of time biasbGPSij in the clock of the wireless terminal, the value of the pseudorange obtained will not be the real distance from the wireless terminal to the satellite; it will actually be the sum of the true distance plus the...

30/3,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01001532

# Basisstation Sucheseinrichtung

Dispositif de recherche des stations de base

PATENT ASSIGNEE:

Matsushita Electric Industrial Co., Ltd., (1855508), 1006, Oaza-Kadoma, Kadoma-shi, Osaka 571-8501, (JP), (Applicant designated States: all) INVENTOR:

Moriya, Masahiro, 4-52-25, Kamoi, Midori-ku, Yokohama-shi, Kanagawa 226-0003, (JP)

LEGAL REPRESENTATIVE:

Grunecker, Kinkeldey, Stockmair & Schwanhausser Anwaltssozietat (100721), Maximilianstrasse 58, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 903951 A2 990324 (Basic)

EP 903951 A3 010919

APPLICATION (CC, No, Date): EP 98117328 980911;

PRIORITY (CC, No, Date): JP 97273735 970920

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: H04Q-007/38; H03G-003/20; H04B-007/005

ABSTRACT WORD COUNT: 56

NOTE:

Figure number on first page: 2

LANGUAGE (Publication, Procedural, Application): English; English; English; FULLTEXT AVAILABILITY:

Available Text Language Update
CLAIMS A (English) 9911 517
SPEC A (English) 9911 2154
Total word count - document A 2671
Total word count - document B 0
Total word count - documents A + B 2671

INTERNATIONAL PATENT CLASS: H04Q-007/38 ...

# ...ABSTRACT A2

A mobile radio terminal apparatus in a code division multiple access system comprises level crossing number counter section 201 that calculates the Doppler frequency caused by the fading, moving speed calculation section 202 and search processing control section 203 that controls the frequency of search processing using the moving speed information in the variable mode.

...SPECIFICATION a base station apparatus corresponding to the moving speed information.

This configuration allows waste -free search processing corresponding to the moving speed of mobile radio terminal apparatuses, preventing an increase of the consumed current in the search processing, which will lead to...

...frequency of search processing.

FIG .2 illustrates a section diagram showing the configuration of a mobile radio terminal apparatus according to Embodiment 1 of the present invention. The mobile radio terminal apparatus according to Embodiment 1 of the present invention comprises, in addition to the conventional mobile radio terminal apparatus in FIG. 1, level crossing number counter section 201 that counts the number of times...

...level of a long-time averaged received signal upwardly for a certain period time, moving speed calculation section 202 that calculates the moving speed, and search processing control section 203 that controls the frequency of search processing based on this moving speed information.

The operation of the mobile radio terminal apparatus according to Embodiment 1 of the...This count value is virtually equal to the Doppler frequency and is output to moving **speed calculation** section 202. This Doppler frequency refers to the frequency of a signal received from a base station apparatus shifted by the frequency **calculated** from the

moving speed /signal wavelength with respect to the transmitted signal when the mobile radio terminal apparatus is moving. Therefore, it possible to calculate the moving speed by detecting the Doppler frequency.

Moving speed calculation section 202 calculates the moving speed of a mobile radio terminal apparatus using (speed of light X Doppler frequency / carrier frequency) and outputs this result to search processing control section 203. Search processing control section 203 changes the frequency of search processing based on the moving speed information and notifies it to search processing section 106. For example, search processing control section 203 divides the moving speed into two stages and controls search processing section 106 so that the frequency of search processing may be increased for high-speed moving and decreased for low-speed moving. According to this control, search processing section 106 increases or decreases the frequency of search processing.

Furthermore, search processing section...

... to directly or indirectly adjust the carrier frequency of radio section 102.

When a conventional mobile radio terminal apparatus does not move or moves at a low speed , it would constantly search reference signals of other base station apparatuses, increasing the consumed current even if the level...

- ...the reference signals of the other base station apparatuses almost does not change. However, the mobile radio terminal apparatus according to Embodiment 1 of the present invention allows search processing to be stopped temporarily when the mobile radio terminal apparatus does not move or moves at a low speed, preventing an increase of the consumed
- ...frequency broadness is output to moving speed calculation section 202 as the Doppler frequency.

Moving speed calculation section 202 measures the moving speed of the mobile radio terminal apparatus from the Doppler frequency and carrier frequency as in the case of Embodiment 1 above and outputs this moving speed information to search processing control section 203. Search processing control section 203 changes the frequency with which search processing should be carried out based on the moving speed information and notifies this to search processing section 106. Based on this information, search processing section 106 increases or decreases the...

- CLAIMS 1. A base station searching device comprising:
  - moving speed detection means for detecting a moving speed of a mobile station apparatus;
    - search processing means for searching a reference signal transmitted
      from a peripheral base station apparatus; and...
- ...received level.
  - 4. The base station searching device according to claim 1, wherein said moving speed detection means comprising:
  - frequency broadness calculation means for calculating the frequency broadness using a difference between a carrier frequency used by the base station apparatus and a carrier frequency of the mobile station apparatus obtained from the received signal; and moving speed detection means for detecting the moving speed...
- ...of searching a reference signal transmitted from a peripheral base station apparatus corresponding to moving **speed** information.
  - 8. A moving speed measuring method in which a Doppler frequency caused by fading using the number of times of a received signal crossing a level of an average received signal is calculated, and a moving speed of a mobile station apparatus is measured using the Doppler frequency and a carrier frequency.
  - 9. A moving **speed measuring** method in which a frequency broadness is calculated using a difference between a carrier frequency used by a

base station apparatus and a carrier frequency of a mobile station apparatus obtained from a receive signal, and a moving speed of the mobile station apparatus is measured using the frequency broadness and the carrier frequency.

10. A handover method in...

30/3,K/3 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00844739 \*\*Image available\*\*

METHOD AND APPARATUS FOR ORIGINATING GSM-900/GSM-1900/GSM-1800 CELLULAR CALLS WITHOUT REQUIRING FULL POWER AT CALL INITIATION

PROCEDE ET APPAREIL POUR ETABLIR DES APPELS CELLULAIRES GSM-900/GSM-1900/GSM-1800 SANS LA NECESSITE D'UNE PLEINE PUISSANCE AU LANCEMENT D'APPEL

Patent Applicant/Assignee:

AIRNET COMMUNICATIONS CORPORATION, 100 Rialto Place, Suite 300, Melbourne, FL 32901, US, US (Residence), US (Nationality) Inventor(s):

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SACCO Robert J (et al) (agent), Quarles & Brady LLP, 222 Lakeview Avenue, P.O. Box 3188, West Palm Beach, FL 33402-3188, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200178423 A1 20011018 (WO 0178423)

Application: WO 2000US9599 20000411 (PCT/WO US0009599)

Priority Application: WO 2000US9599 20000411

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 5396

Main International Patent Class: H04Q-007/20

Fulltext Availability: Detailed Description

Detailed Description

... during call initiation.

The time delay is then used to estimate the distance of the mobile subscriber unit from the base station by dividing the time delay by the speed of light.

The estimated distance is then used to compute an index.

The index is used to assign a...

30/3,K/4 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00842525 \*\*Image available\*\*
DISTRIBUTED LOCATION SYSTEM
SYSTEME DE LOCALISATION DISTRIBUE
Patent Applicant/Assignee:

CELLGUIDE LTD, 12 Hamada St., 76703 Rehovot, IL, IL (Residence), IL (Nationality), (For all designated states except: US) FRIEDMAN Mark M, 1 Alharizi St., 43406 Raanana, IL, IL (Residence), US (Nationality), (Designated only for: TJ) Patent Applicant/Inventor: NIR Joseph, 26 Hanasi Harishon St., 76302 Rehovot, IL, IL (Residence), IL (Nationality), (Designated only for: US) SHAYEVITS Baruch, 12 Ben Eliezer St., 75229 Rishon Lezion, IL, IL (Residence), IL (Nationality), (Designated only for: US) COHEN Baruch, 5 Eilon St., 75286 Rishon Lezion, IL, IL (Residence), IL (Nationality), (Designated only for: US) Legal Representative: FRIEDMAN Mark M (commercial rep.), c/o Castorina, Anthony, 2001 Jefferson David Highway, Suite 207, Arlington, VA 22202, US, Patent and Priority Information (Country, Number, Date): Patent: WO 200176284 A1 20011011 (WO 0176284) WO 2001US4961 20010216 (PCT/WO US0104961) Application: Priority Application: US 2000194035 20000403 Designated States: (Protection type is "patent" unless otherwise stated - for applications prior to 2004) AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM Publication Language: English Filing Language: English Fulltext Word Count: 2867 Main International Patent Class: H04Q-007/20 Fulltext Availability: Detailed Description Detailed Description ... OF THE INVENTION The travel time of a signal from a radio source to a receiver of the source is used for ranging purposes. The travel time of the signal from the radio source having a known geographic location, to a receiver having an unknown location is measured , and multiplied by the speed of light to determine the distance between the radio source and the receiver . Common commercial navigation methods employ navigation satellites, typically of the GPS system, as radio sources. In the case of satellites however, the 'range between the receiver and a number of satellites is not enough for calculating geographical position of the receiver . Once the ranges to various satellites become known, the exact position of the satellites with... ...taken into consideration and used as an input for calculating the geographical location of the receiver . In location systems that employ the signals of cellular networks as radio sources for navigation purposes, base stations (BTSs) are used as radio sources... ...memory of the system. In WO- 99 - 21028 a method is disclosed for locating a unit of a digital telephone system, in which a reference

positioned at a known location receives signals of BTSs (base

receiver, of unknown location receives the same signals and by calculating the time offsets between the respective reception times in each receiver, location is determined. Another method, disclosed in WO

stations) of the telephone system, each having a known location. Another

receiver

transceiver

- 99 - 61934 utilizes transmitted downlink signals of BTSs of a cellular network, utilizing them as ranging io measurements. This invention also uses the signal of GPS satellites in combination with the cellular network based ranging approach. In this invention both signal sources are used to determine location of a mobile transceiver of the network.

SUMMARY OF THE INVENTION
An object of the present invention is to...

30/3,K/5 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00819015 \*\*Image available\*\*

LOCATION OF A MOBILE STATION IN A TELECOMMUNICATIONS SYSTEM LOCALISATION D'UNE STATION MOBILE DANS UN SYSTEME DE TELECOMMUNICATION Patent Applicant/Assignee:

NOKIA NETWORKS OY, Keilalahdentie 4, FIN-02150 Espoo, FI, FI (Residence), FI (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

NAGHIAN Siamak, Maininkitie 2A 3, FIN-02320 Espoo, FI, FI (Residence), FI (Nationality), (Designated only for: US)

KALL Jan, Juopperinmetsa 2B, FIN-02730 Espoo, FI, FI (Residence), FI
 (Nationality), (Designated only for: US)

Legal Representative:

RUUSKANEN Juha-Pekka (et al) (agent), Page White & Farrer, 54 Doughty Street, London WC1N 2LS, GB,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200152569 A1 20010719 (WO 0152569)

Application:

WO 2000EP13044 20001220 (PCT/WO EP0013044)

Priority Application: GB 2000528 20000111

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 11846

Main International Patent Class: H04Q-007/22 Fulltext Availability:

Claims

### Claim

with other advanced positioning features of a cellular system. These include Localized Service Area (LSA) priority, LSA Only Access, Exclusive Access, Preferential Access, and so on. The inter-mode environment may include different cellular system e.g. GSM, WCDMA, etc. with multi layered cellular structures, including macro-cells, micro-cells, pico-cells, and home-cells. In the following some...periods do not occur especially often), etc.

Figure 7 illustrates different possible states of a mobile terminal in a 3 rd generation environment in different WCDMA radio resource control (RRC) states. The...available, the cell with the highest priority should be reselected.

The MS may use normal cellular system methods when selecting

a cell (e.g. when the mobile station is switched on...parameters such as the best reference signal, a Round Timing Trip (RTT) between Base Station, Mobile Station, Location Measurement Unit (LMU), Reference Node Positioning Elements, , as well as antenna beam direction parameter may be utilised...

...Round Trip Time
Difference(RTTD) principles. More particularly, the RNC or
other network elements (or mobile devices) involved in the
positioning calculation process may utilise the Round Trip
Time Difference (RTTD) measured range from MS to BS2, and
c is speed of light.
The DRTT can be measured with three different base stations
and the MS is located...

...given location
probability, and a cell range for an indoor and outdoor
coverage.
In some cellular systems, such as in the CDMA, the cell range
may vary in time, i.e...

...is the transmitted power (Equivalent Isotropic Radiated Power, EIRP) of the base station plus the receiver gain, Pl is the path loss, 21(r0) is the known nearby reference distance r0...within an interaction area between neighbouring radio coverage hyperbolas. In addition to the latest cell identifier (LCS estimates), MS speed and direction can be utilised to map the cell identifiers to the corresponding coverage area...this as a obile positioning request. Consequently, a positioning request message is send to the cellular network. Then the terminal is positioned by the network (or terminal) e.g. based on the home cell and the mobile location information is sent to the Mobile Location Center of the cellular system. This information may include the mobile station co-ordinates, time, parking related information (e...

30/3,K/6 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00745837 \*\*Image available\*\*

PROVIDING WARNING SIGNALS OF GRAPHIC GRANULARITY GRANULARITE GRAPHIQUE: EMISSION DE SIGNAUX DE MISE EN GARDE Patent Applicant/Assignee:

CELL SOUTH INC, 41 Perimeter Center East, Suite 660, Atlanta, GA 30346, US, US (Residence), US (Nationality)

Inventor(s):

JOHNSON Sam, 6510 Ashbourne Court, Suwanee, GA 30024, US Legal Representative:

SMITH Gregory S, Troutman Sanders LLP, 600 Peachtree Street, Suite 5200, Atlanta, GA 30308-2216, US

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200059236 Al 20001005 (WO 0059236)

Application: WO 2000US8094 20000327 (PCT/WO US0008094)

Priority Application: US 99277492 19990326

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

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(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
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(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD. RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 10555

Main International Patent Class: H04Q-001/00

Fulltext Availability: Detailed Description

Detailed Description

... and gathers and

14 analyzes critical parameters associated with the event. Upon completion of the analysis, the size, direction, speed of movement, area impacted, and at risk 1 6areas are identified. Based on this information, a geographic oriented database dized to 'dentify pager receivers that should be alerted. Alert messages are is uti I I

1 8then delivered to each of the pager receivers that are either within the area being impacted or within the areas at nisk. In...spotted, (d) emergency help is needed, etc.

In addition, sensors could be coupled to the **remote unit** for the purpose of

gathering information to feedback to the weather monitoring system. The sensors could include temperature.

vInd velocity, light intensity, or any of a variety of sensors. This type of feedback information is useful...

30/3,K/7 (Item 5 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00491193 \*\*Image available\*\*

SPEED ESTIMATE METHOD OF A MOBILE PART IN A CELLULAR TELECOMMUNICATION SYSTEM

PROCEDE D'ESTIMATION DE LA VITESSE D'UNE UNITE. MOBILE DANS UN SYSTEME DE TELECOMMUNICATION CELLULAIRE

Patent Applicant/Assignee:

ITALTEL SPA,

Inventor(s):

DE BENEDITTIS Rossella,

ROSINA Giancarlo,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9922545 Al 19990506

Application: WO 98EP6976 19981019 (PCT/WO EP9806976)

Priority Application: IT 97MI2395 19971023

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

CN RU AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 3270

SPEED ESTIMATE METHOD OF A MOBILE PART IN A CELLULAR

TELECOMMUNICATION SYSTEM

Main International Patent Class: H04Q-007/38

Fulltext Availability:

Detailed Description

Claims

English Abstract

Method to estimate the radial speed of a mobile unit (PP) inside the area covered by a digital cellular telecommunication system DECT. The estimate is made determining the variation of instants in which the receiving unit (mobile or fix) identifies the correlation word used

to align in phase the slot synchronism of...

Detailed Description

VO 99/22545 PCTIEP98/06976

" SPEED -ESTIMATE METHOD OF A MOBILE PART IN A CELLULAR TELECOMMUNICATION SYSTEM"

Field of the Invention

The present invention relates to a digital telecommunication system of the TDMA (Time Division Multiple Access) type with cellular structure, and more particularly it relates to a speed estimate method of a mobile unit inside the area covered by a digital telecommunication system, subdivided into a plurality of adjacent...

...the "seamless" type, that is without loss of information, are not assured.

The possibility to **detect** the movement **speed** of a **mobile unit** in due time, can therefore enable the optimization of the use of the resources (radio...

- ...system operator. Often, the area served by the DECT system is also covered by the **cellular** system GSM on which the "dual mode" portable part in quick movement could profitably be...
- ... to the compatibility between the two systems.

Background art

Different proposals have been made to **measure** the **speed** of a **mobile** unit

inside the area covered by a micro/pico cellular system, in order to deviate the mobile unit on a system having more extended cells (when these coexist and are able to interoperate with the micro/pico cellular system), and therefore to control at best the system resources available.

In particular, WO 96/07279 describes an **estimate** method of the **speed** of the **mobile unit** based on measurements of the intensity of field received and on the relevant variations in...

...path or fading phenomena) can be caused also by the movement of object around the **mobile unit** and/or the base **transceiver** station, and can result low reliable.

Objects of the Invention
The object of the present...

...of the Invention

The invention attains these objects through a method enabling to realize the **estimate** of the **speed** of the **mobile unit measuring** the variation in time of reception instants of the useful signal inside the time slot...

# Claim

- ... Making reference to the Figures, in both the method implementations according to the invention, to **determine** the **speed** of the mobile user, the instants are used in which the receiving station correlates, inside...
- ...size of the micro/pico cell. For description sake, we shall assume hereafter that the **speed estimate** takes place in the fixed station DECT, that is the radio base station, called also...
- ...m)

The above mentioned law considers the fact that signals propagate in air at the light speed, and that the propagation delay affecting the signal transmitted by a PIP and received by...

...first embodiment of the method according to the invention, the lower limit of the movement speed of the IMP is estimated comparing the

variations of two correlation instants of the signal received by the RFP, averaged...

...the movement speed (V) beyond which the system operator desires that the control of the mobile unit is passed from a microcell to a macrocell, is selected according to the following factors...to the above, the method described referring to said first preferred embodiment enables to precisely calculate if the movement speed of the mobile is higher than, or as much equal to the limit value set...

#### ...of the Invention

According to an embodiment of the invention, the method applied enables to **estimate** the actual movement **speed** of the **mobile unit**, comparing a sequence of instants in which the RFP correlates to the signal transmitted by the PP averaged in consecutive measurement intervals. The measurement interval (ATmis) for the **estimate** of the movement **speed** (V) is dimensioned in order to eliminate the jitter and the instabilities of reference times...

- ...said difference is stored (ATmean), the time counter Tmis is "stopped/frozen", proceeding to the estimate of the movement speed V of the mobile unit using the following formula:

  1 0 V (Mt/S) @@ [ATmean/ Tmis] \* 300/2

  If the...versus the fixed time of 18,6 seconds requested in the first embodiment. However, the estimate of the movement speed of the mobile is affected by inaccuracy linearly tied to the ATmis value. For instance
- ...0.868/10\*150 = 13.02 m/s = 47 km/h; while a 100km/h speed, is estimated equal to 94 km/h. However, this imprecision is more than acceptable for the subject...
- ...encompasses any and all such embodiments covered by the following claims.

  CLAIMS
  - 1 Method to estimate the radial speed of a mobile unit (PP) inside the area covered by a digital cellular telecommunication system in which each cell is served by a radio fixed part (RFP) placed...
- ...is made determining the variation of the instants in which, versus a nominal reference, the mobile unit (the radio fixed part respectively) correlates to the signal transmitted by the base station (by the mobile unit respectively) inside an assigned time slot.
  - 2 Method according to claim 1, characterized in that...slots.
    6 Method according to claim 5, in particular to transfer the control of the mobile unit from a cell to a cell having larger size or macrocell covering the same area...

## ...the

following operational phases:

- a) define a lower limit of the movement speed of the mobile unit
   (PP);
- b) define a measurement interval ATmis;
- c) calculate two mean values (T1 mean and...
- ...M is the number of frames contained in the per-set measurement interval ATmis;
  - d) estimate the radial speed (V) of the mobile according to the relation:
  - V = [I(T2mean T1 mean) J/ ATmis...
- ...intervals.

```
8 Method according to claim 7, in particular to transfer the control of
               unit from a cell to a cell having larger size or macrocell
   the mobile
   covering the same area...
 ...the following
   operational phases:
   a) - define a lower limit of the moving speed of the mobile unit
   b) define a measurement interval ATmis;
   c) calculate a plurality of mean values of...
 ...consecutive mean values;
   f) - store such difference (ATmean) and stop said time counter (Tmis);
   q) - estimate the radial speed (V) of the mobile according to the
   relation:
   V = [ATmean/Tmis] * 300/2
   h) - compare...
30/3,K/8 (Item 6 from file: 349)
 DIALOG(R) File 349:PCT FULLTEXT
 (c) 2004 WIPO/Univentio. All rts. reserv.
 00443660
             **Image available**
 METHOD AND APPARATUS FOR COVARIANCE MATRIX ESTIMATION IN A WEIGHTED
     LEAST-SQUARES LOCATION SOLUTION
 PROCEDE ET APPAREIL D'ESTIMATION PAR MATRICE DE COVARIANCES RECOURANT A UNE
     SOLUTION DE LOCALISATION PAR LA METHODE DES MOINDRES CARRES PONDERES
 Patent Applicant/Assignee:
   MOTOROLA INC,
 Inventor(s):
   BIRCHLER Mark A,
   JONES Debra A,
   OROS Nicholas C,
 Patent and Priority Information (Country, Number, Date):
                         WO 9834124 A1 19980806
   Patent:
                         WO 97US23433 19971219 (PCT/WO US9723433)
   Application:
   Priority Application: US 97792331 19970131
 Designated States:
 (Protection type is "patent" unless otherwise stated - for applications
 prior to 2004)
   AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GW
   HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO
   NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE
   LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB
   GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
 Publication Language: English
 Fulltext Word Count: 6288
 ...International Patent Class: H04Q-07:00 ...
 ... H04Q-09:00
 Fulltext Availability:
   Detailed Description
 Detailed Description
 ... the WLS approach to location
   determination attempts to iteratively derive a location
   estimate for a mobile unit based, in part, on distance
   estimates between the mobile unit and fixed transmitters
   having known locations. Given that distance can be calculated
   as the product of velocity and time, the distance estimates
   (referred to as pseudo-ranges or PRs) are calculated in
   practice by multiplying the propagation delays between the
            unit and fixed transmitters with the speed of light .
   Assuming ideally measured propagation delays, the location of
   the mobile unit can be calculated using the pseudo-ranges with
```

little or no error. However, propagation delays...

```
(c) 2004 European Patent Office
File 347: JAPIO Nov 1976-2004/Apr(Updated 040802)
         (c) 2004 JPO & JAPIO
File 350: Derwent WPIX 1963-2004/UD, UM &UP=200453
         (c) 2004 Thomson Derwent
Set
       Items
               Description
               ((ESTIMAT??? OR CALCULAT??? OR COMPUT??? OR DETERMIN??? OR
S 1
      197171
            EVALUAT ??? OR ANALY ???? OR FIND ??? OR SEARCH ??? OR MONITOR ???
            OR TRACK??? OR GAUG??? OR MEASUR??? OR IDENTIF??? OR SENS??? -
            OR DETECT???) (5N) (SPEED?? OR ACCLERAT??? OR VELOCIT???))
               (RECEIVER???? OR TRANSCEIVER?? OR CELLULAR?? OR CELLPHON??
S2
            OR CELL()PHON??) OR ((MOBILE?? OR REMOTE?? OR WIRELESS?? OR W-
            IRE() LESS?? OR CELLULAR??) (3N) (UNIT? OR DEVICE? ? OR APPARATU-
            S?? OR TERMINAL?? OR PHONE? OR TELEPHONE?))
               TIME (3N) DELAY?? OR TIMEDELAY???
S3
               MULTI() PATH?? OR MULTIPATH?? OR MULTIPLEPATH OR MULTIPLE()-
S4
        5859
          PATH??
       51402 PHASE??(5N)DIFFERENC??
S5
S6
        2594
               (SPEED OR VELOCIT???) (1N) LIGHT??
       15396 CARRIER (2N) FREQUEN???
s7
        7143 SAMPL???(2N) PERIOD??
S8
         400 CHANNEL??(2N)COEFFICIENT??
S 9
         893 PHASE??(3N)COEFFICIEN??
S10
          69 WIENER??(3N)FILTER??
S11
               AU=(DA()ROCHA A? OR DAROCHA A? OR DA()ROCHA, A? OR DAROCHA,
           4
S12
            A? OR GUILBAUD M? OR GUILBAUD, M?)
        7465 S1 AND S2
S13
               S13 AND S3
S14
         161
S15
          46
               S13 AND S4
S16
           4
               S14 AND S15
           5
               S14 AND S5
S17
               S14 AND S6
           4
S18
           0
               S14 AND S7
S19
           0
               S14 AND S8
S20
           0
               S14 AND S9
S21
           0
               S14 AND S10
S22
S23
           1
               S14 AND S11
S24
           3
               S16 NOT (S12 OR S23)
S25
           5
               S17 NOT (S23 OR S24 OR S12 OR S23)
              S18 NOT (S25 OR S23 OR S24 OR S12 OR S23)
$2.6
           3
          42
               S15 NOT (S26 OR S25 OR S23 OR S24 OR S12 OR S23)
S27
S28
          5
               S27 AND (IC=H040?).
S29
          16 S27 AND AD=20000831:20040820/PR
S30
          26 S27 NOT S29
```

File 344: Chinese Patents Abs Aug 1985-2004/May

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12/3,K/1
              (Item 1 from file: 347)
DIALOG(R) File 347: JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.
07273373
            **Image available**
RECEIVER FOR MOBILE RADIO COMMUNICATION UNIT TO USE SPEED ESTIMATOR
              2002-141836 [JP 2002141836 A]
PUB. NO.:
             May 17, 2002 (20020517)
PUBLISHED:
             DA ROCHA ALEXANDRE
INVENTOR(s):
               GUILBAUD MICHAEL
APPLICANT(s): ALCATEL
              2001-253428
                          [JP 2001253428]
APPL. NO.:
              August 23, 2001 (20010823)
FILED:
PRIORITY:
              00 200011118 [FR 200011118], FR (France), August 31, 2000
              (20000831)
INVENTOR(s): DA ROCHA ALEXANDRE
               GUILBAUD MICHAEL
 12/3, K/2
              (Item 1 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
014564497
             **Image available**
WPI Acc No: 2002-385200/200242
XRPX Acc No: N02-301613
  Receiver for mobile radio-communication unit additionally has speed
  estimator with input terminal connected to output terminal of channel
  estimator, and with output terminal connected to second input terminal on
  filtering unit
Patent Assignee: ALCATEL (COGE ); ALCATEL SA (COGE ); ALCATEL ALSTHOM CIE
  GEN ELECTRICITE (COGE )
Inventor: DA ROCHA A; GUILBAUD M
Number of Countries: 030 Number of Patents: 006
Patent Family:
Patent No
              Kind
                     Date
                             Applicat No
                                            Kind
                                                   Date
                                                            Week
                                                 20010809 200242
EP 1185000
               A1 20020306 EP 2001402148
                                             Α
                   20020307 AU 200159896
                                                 20010815 200242
AU 200159896
              Α
                                             Α
              A1 20020301 FR 200011118
                                                 20000831
                                                           200242
FR 2813488
                                             Α
US 20020042279 A1 20020411 US 2001941707
                                                  20010830 200242
                                             Α
CN 1340982
              Α
                   20020320 CN 2001125240
                                             Α
                                                 20010831 200246
JP 2002141836 A
                   20020517
                            JP 2001253428
                                             Α
                                                 20010823 200248
Priority Applications (No Type Date): FR 200011118 A 20000831
Patent Details:
Patent No Kind Lan Pg
                                     Filing Notes
                         Main IPC
             A1 F 14 H04B-007/005
EP 1185000
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI TR
AU 200159896 A
                       H04Q-007/32
FR 2813488
                       H04Q-007/32
             A1
US 20020042279 A1
                        H040-007/20
CN 1340982
             Α
                       H04Q - 007/32
JP 2002141836 A
                    27 H04B-001/707
... Inventor: GUILBAUD M
              (Item 2 from file: 350)
 12/3, K/3
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
```

009108598

WPI Acc No: 1992-236028/199229

XRAM Acc No: C92-106387

Treatment of molten metal for degassing and removing oxide(s) - involves refining during transfer to receiving space

Patent Assignee: SFRM SOC FR RECUPERATION METALLURGIQUE (SFRM )

Inventor: COLOM N D; GUILBAUD M; LE FLOCH R Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week FR 2669041 A1 19920515 FR 9013953 A 19901109 199229 B

Priority Applications (No Type Date): FR 9013953 A 19901109

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

FR 2669041 A1 14 C22B-009/05

... Inventor: GUILBAUD M

12/3,K/4 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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007822759 \*\*Image available\*\*
WPI Acc No: 1989-087871/198912

XRPX Acc No: N89-067015

Slides for automobile seats - incorporate several rolling balls to

eliminate metal-to-metal contact

Patent Assignee: IND MOLAFLEX SARL (INMO-N)

Inventor: DAROCHA A D C

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week FR 2618863 A 19890203 FR 8712449 A 19870908 198912 B PT 85464 A 19890630 198930

Priority Applications (No Type Date): PT 85464 A 19870730

Patent Details:

Patent No Kind Lan Pg Main'IPC Filing Notes

FR 2618863 A 7

Inventor: DAROCHA A D C

16/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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\*\*Image available\*\* 07273373

RADIO COMMUNICATION UNIT TO USE FOR MOBILE RECEIVER

ESTIMATOR

2002-141836 [JP 2002141836 A] PUB. NO.:

May 17, 2002 (20020517) PUBLISHED: INVENTOR(s): DA ROCHA ALEXANDRE

GUILBAUD MICHAEL

APPLICANT(s): ALCATEL

2001-253428 [JP 2001253428] APPL. NO.: August 23, 2001 (20010823) FILED:

00 200011118 [FR 200011118], FR (France), August 31, 2000 PRIORITY:

(20000831)

RADIO COMMUNICATION UNIT TO USE SPEED FOR MOBILE RECEIVER

ESTIMATOR

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a receiver, with which propagation estimation is improved regardless of the speed of a mobile receiver unit while remarkably reducing complexity.

SOLUTION: In the receiver for a mobile radio communication unit for communicating with a base station through a propagation channel, this device is provided with a channel estimator, which is equipped with a path finder for determining the time delay in a multipath signal and can be composed of the bank of Wiener filters, for sending the estimate...

... of the propagation channel and sending the estimate value of the propagation channel to a speed estimator for supplying the estimated speed of a mobile radio communication unit to the filter unit so that a suitable filter can be selected corresponding to the speed estimation

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16/3,K/2 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

016393590 \*\*Image available\*\* WPI Acc No: 2004-551499/200453

XRPX Acc No: N04-436190

Mobile signal recognizing method for wireless CDMA system, involves controlling base station's signal searching by giving weight to non-coherent and coherent accumulators based on measured mobile speed and signal-to-noise ratio

Patent Assignee: LG ELECTRONICS INC (GLDS )

Inventor: HWANG B J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date US 20040127213 A1 20040701 US 2003735766 A 20031216 200453 B

Priority Applications (No Type Date): KR 200280867 A 20021217

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20040127213 A1 12 H04Q-007/20

... station's signal searching by giving weight to non-coherent and coherent accumulators based on measured mobile speed and signal-to-noise ratio

### Abstract (Basic):

- ... The method involves **measuring** a moving **speed** and signal-to-noise ratio of user device by respective Doppler and signal-to-interference...
- ... An INDEPENDENT CLAIM is also included for an apparatus for recognizing mobile signals in a CDMA mobile communication system...
- ... The method recognizes mobile signals that restrict **delays** of mean acquisition **time** and a synchronization time in a base station modem. The presence of the signal-to...
- ...flowchart for a process for searching signals using an apparatus for recognizing signals in the **multi path** searcher of the base station modem...

16/3,K/3 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

013543129 \*\*Image available\*\*
WPI Acc No: 2001-027335/200104

XRPX Acc No: N01-021450

Moving speed computing apparatus of mobile station in spread spectrum communication, determines relative delays preset to multipath transmissions between mobile and base stations and time variations of delays

Patent Assignee: NEC CORP (NIDE )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
JP 2000252959 A 20000914 JP 9950141 A 19990226 200104 B
JP 3267264 B2 20020318 JP 9950141 A 19990226 200222

Priority Applications (No Type Date): JP 9950141 A 19990226

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 2000252959 A 8 H04J-013/04

JP 3267264 B2 7 H04B-001/707 Previous Publ. patent JP 2000252959

Moving speed computing apparatus of mobile station in spread spectrum communication, determines relative delays preset to multi-path transmissions between mobile and base stations and time variations of delays

# Abstract (Basic):

- ... transmission paths (1-3) between mobile and base stations vary in distance but the relative **time delays** involved, related to these paths are worked out through a time correlation based analysis of...
- ...is moved, the time variations of these path specific relative delay is worked out and measures the moving speed of mobile station.
- ... An INDEPENDENT CLAIM is also included for moving speed computing method of mobile station...
- ...For computing moving speed of mobile station such as portable telephone in spread spectrum communication...
- ... The figure shows the diagram showing the component of moving speed computing system of mobile station...

16/3,K/4 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

009409125 \*\*Image available\*\*

WPI Acc No: 1993-102636/199313

XRPX Acc No: N93-078015

Matched filter receiver and decision feedback equaliser - has transversal filter and tap weight controller with circuit to correlate delay line tap signals and equaliser output

Patent Assignee: NEC CORP (NIDE )
Inventor: YAMAMOTO T; YAMAMOTO Y

Number of Countries: 009 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 534489	A2	19930331	EP 92116564	Α	19920928	199313	В
JP 5090904	Α	19930409	JP 91248192	Α	19910927	199319	
CA 2079292	А	19930328	CA 2079292	Α	19920928	199324	
EP 534489	A3	19930609	EP 92116564	Α	19920928	199404	
US 5369668	Α	19941129	US 92952808	Α	19920928	199502	
CA 2079292	С	19961112	CA 2079292	Α	19920928	199705	
EP 534489	В1	20010530	EP 92116564	Α	19920928	200131	
DE 69231844	E	20010705	DE 631844	Α	19920928	200146	
			EP 92116564		19920928	** *	

Priority Applications (No Type Date): JP 91248192 A 19910927

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 534489 A2 E 8 H04L-027/00

Designated States (Regional): BE DE FR GB IT NL

JP 5090904 A H03H-021/00 CA 2079292 Α H04B-001/10 A3 A EP 534489 H04L-027/00 US 5369668 7 H03H-007/30 CA 2079292 H04B-001/10 С B1 E H04L-025/03 EP 534489

Designated States (Regional): BE DE FR GB IT NL

DE 69231844 E H04L-025/03 Based on patent EP 534489

# Matched filter receiver and decision feedback equaliser...

- ...Abstract (Basic): USE/ADVANTAGE for fractional equaliser with DFE.

  Provides matched filter capable of tracking high speed variations of signals affected by multipath fading...
- ... Abstract (Equivalent): The matched filter receiver in combination with a decision feedback equaliser, for a digital radio transmission comprises a transversal...
- ...second delay line so that the delayed signal at a centre tap of the second delay line is time coincident with an output signal from the decision feedback equaliser...
- ...ADVANTAGE Provides a matched filter receiver capable of tracking high speed variations of signals affected by multipath fading...

23/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

07273373 \*\*Image available\*\*

RECEIVER FOR MOBILE RADIO COMMUNICATION UNIT TO USE SPEED

ESTIMATOR

PUB. NO.: 2002-141836 [JP 2002141836 A]

PUBLISHED: May 17, 2002 (20020517)

INVENTOR(s): DA ROCHA ALEXANDRE

GUILBAUD MICHAEL

APPLICANT(s): ALCATEL

APPL. NO.: 2001-253428 [JP 2001253428]

FILED: August 23, 2001 (20010823)

PRIORITY: 00 200011118 [FR 200011118], FR (France), August 31, 2000

(20000831)

RECEIVER FOR MOBILE RADIO COMMUNICATION UNIT TO USE SPEED

ESTIMATOR

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide a receiver, with which propagation channel estimation is improved regardless of the speed of a mobile receiver unit while remarkably reducing complexity.

SOLUTION: In the receiver for a mobile radio communication unit for

SOLUTION: In the receiver for a mobile radio communication unit for communicating with a base station through a propagation channel, this device is provided with a channel estimator, which is equipped with a path finder for determining the time delay in a multipath signal and can be composed of the bank of Wiener filters, for sending the estimate value of the propagation channel to a filter unit for optimizing...

... of the propagation channel and sending the estimate value of the propagation channel to a **speed estimator** for supplying the **estimated speed** of a **mobile** radio communication **unit** to the filter unit so that a suitable filter can be selected corresponding to the **speed estimation** 

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?

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24/3,K/1
              (Item 1 from file: 350)
DIALOG(R) File 350: Derwent WPIX
 (c) 2004 Thomson Derwent. All rts. reserv.
016393590
             **Image available**
WPI Acc No: 2004-551499/200453
XRPX Acc No: N04-436190
  Mobile signal recognizing method for wireless CDMA system, involves
  controlling base station's signal searching by giving weight to
  non-coherent and coherent accumulators based on measured mobile speed
  and signal-to-noise ratio
Patent Assignee: LG ELECTRONICS INC (GLDS )
Inventor: HWANG B J
Number of Countries: 001 Number of Patents: 001
Patent Family:
                                                            Week
Patent No
              Kind
                     Date
                             Applicat No
                                            Kind
                                                   Date
                                                  20031216 200453 B
US 20040127213 A1 20040701 US 2003735766
                                            Α
Priority Applications (No Type Date): KR 200280867 A 20021217
Patent Details:
                        Main IPC
Patent No Kind Lan Pg
                                     Filing Notes
US 20040127213 A1
                    12 H04Q-007/20
 ... station's signal searching by giving weight to non-coherent and
  coherent accumulators based on measured mobile speed and
  signal-to-noise ratio
Abstract (Basic):
           The method involves measuring a moving speed and
    signal-to-noise ratio of user device by respective Doppler and
    signal-to-interference...
           An INDEPENDENT CLAIM is also included for an apparatus for
    recognizing mobile signals in a CDMA mobile communication system...
 ...The method recognizes mobile signals that restrict delays of mean
    acquisition time and a synchronization time in a base station modem.
    The presence of the signal-to...
 ...flowchart for a process for searching signals using an apparatus for
    recognizing signals in the multi - path searcher of the base station
    modem...
              (Item 2 from file: 350)
 24/3,K/2
 DIALOG(R) File 350: Derwent WPIX
 (c) 2004 Thomson Derwent. All rts. reserv.
013543129
             **Image available**
WPI Acc No: 2001-027335/200104
XRPX Acc No: N01-021450
                             apparatus of mobile station in spread
  Moving speed computing
  spectrum communication, determines relative delays preset to multi -
  path transmissions between mobile and base stations and time
  variations of delays
 Patent Assignee: NEC CORP (NIDE )
Number of Countries: 001 Number of Patents: 002
 Patent Family:
                             Applicat No
                                            Kind
                                                   Date
                                                            Week
 Patent No
                     Date
             Kind
                   20000914
                                                 19990226 200104 B
                             JP 9950141
                                             Α
 JP 2000252959 A
              B2 20020318 JP 9950141
                                             Α
                                                 19990226 200222
 JP 3267264
 Priority Applications (No Type Date): JP 9950141 A 19990226
 Patent Details:
 Patent No Kind Lan Pg
                         Main IPC
                                     Filing Notes
 JP 2000252959 A
                     8 H04J-013/04
                     7 H04B-001/707 Previous Publ. patent JP 2000252959
 JP 3267264
```

Moving speed computing apparatus of mobile station in spread spectrum communication, determines relative delays preset to multi path transmissions between mobile and base stations and time variations of delays

## Abstract (Basic):

transmission paths (1-3) between mobile and base stations vary delays involved, related to these in distance but the relative time paths are worked out through a time correlation based analysis of...

...is moved, the time variations of these path specific relative delay is worked out and measures the moving speed of mobile station.

An INDEPENDENT CLAIM is also included for moving speed computing method of mobile station...

...For computing moving speed of mobile station such as portable telephone in spread spectrum communication...

... The figure shows the diagram showing the component of moving speed computing system of mobile station...

#### 24/3,K/3 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

\*\*Image available\*\* 009409125

WPI Acc No: 1993-102636/199313

XRPX Acc No: N93-078015

Matched filter receiver and decision feedback equaliser - has transversal filter and tap weight controller with circuit to correlate delay line tap signals and equaliser output

Patent Assignee: NEC CORP (NIDE ) Inventor: YAMAMOTO T; YAMAMOTO Y

Number of Countries: 009 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 534489	A2	19930331	EP 92116564	Α	19920928	199313	В
JP 5090904	Α	19930409	JP 91248192	Α	19910927	199319	
CA 2079292	A	19930328	CA 2079292	A	19920928	199324	
EP 534489	A3	19930609	EP 92116564	Α	19920928	199404	
US 5369668	Α	19941129	US 92952808	Α	19920928	199502	
CA 2079292	С	19961112	CA 2079292	Α	19920928	199705	
EP 534489	В1	20010530	EP 92116564	Α	19920928	200131	
DE 69231844	E	20010705	DE 631844	Α	19920928	200146	
			EP 92116564	Α	19920928		

Priority Applications (No Type Date): JP 91248192 A 19910927

Patent Details:

DE 69231844

Patent No Kind Lan Pq Main IPC Filing Notes

A2 E 8 H04L-027/00 EP 534489

Designated States (Regional): BE DE FR GB IT NL

JP 5090904 A H03H-021/00 CA 2079292 Α H04B-001/10 EP 534489 A3 US 5369668 A H04L-027/00 7 H03H-007/30 H04B-001/10 CA 2079292 С

B1 E H04L-025/03 EP 534489

Designated States (Regional): BE DE FR GB IT NL H04L-025/03

# Matched filter receiver and decision feedback equaliser...

... Abstract (Basic): USE/ADVANTAGE - for fractional equaliser with DFE. Provides matched filter capable of tracking high speed variations of signals affected by multipath fading...

... Abstract (Equivalent): The matched filter receiver in combination with a decision feedback equaliser, for a digital radio transmission

Based on patent EP 534489

comprises a transversal...

- ...second delay line so that the delayed signal at a centre tap of the second delay line is time coincident with an output signal from the decision feedback equaliser...
- ...ADVANTAGE Provides a matched filter receiver capable of tracking high speed variations of signals affected by multipath fading...

25/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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07112086 \*\*Image available\*\*

POSITIONING SYSTEM

PUB. NO.: 2001-339753 [JP 2001339753 A] PUBLISHED: December 07, 2001 (20011207)

INVENTOR(s): NAKAJIMA KUNIAKI

APPLICANT(s): NEC ENG LTD

APPL. NO.: 2000-153914 [JP 2000153914] FILED: May 25, 2000 (20000525)

## ABSTRACT

...the base station are inputted into a PN signal correlative part, so that a propagation delay time Δ T is measured based on a phase difference from a receiving standard time Tu. Then a dummy distance (a distance including an error of each clock of base station, an error caused by receiver 's noise, and also including every kind of error added a correcting value for error or the like occurred by moving of the moving station) is calculated by multiplexing a propagation speed (nearly equal to the light speed C) to the delay time Δ T. A position of the moving station is calculated from the dummy distance and...

25/3,K/2 (Item 2 from file: 347) DIALOG(R)File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

02487018 \*\*Image available\*\*
FLOWMETER FOR OPEN CHANNEL

PUB. NO.: 63-103918 [JP 63103918 A] PUBLISHED: May 09, 1988 (19880509)

INVENTOR(s): NAKAMURA TAKAMASA

APPLICANT(s): MITSUBISHI HEAVY IND LTD [000620] (A Japanese Company or

Corporation), JP (Japan) 61-249020 [JP 86249020]

APPL. NO.: 61-249020 [JP 86249020] FILED: October 20, 1986 (19861020)

JOURNAL: Section: P, Section No. 760, Vol. 12, No. 350, Pg. 1,

September 20, 1988 (19880920)

## ABSTRACT

PURPOSE: To accurately measure the flow rate of an open channel by measuring a flow velocity and a water level at the same time by using an ultrasonic wave, and finding...

- ... of ultrasonic oscillators 3 an 4 are installed on the open channel tube 1 and receivers 5 and 6 are provided. At this time, those combinations are set at a constant...
- ... surface of liquid 2 flowing in the open channel tube 1 and received by the receivers respectively. Then, signals from the receivers 5 and 6 are stored in memories 10 and 11 for a specific time and...
- ...peak point of the comparison result signal to obtain the flow velocity V from the time delay .tau. up to the peak point. The phase difference .phi. between the signal from the receiver 5 and the output of an oscillator 7, on the other hand, is detected 18...

25/3,K/3 (Item 1 from file: 350) DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010607719 \*\*Image available\*\*

WPI Acc No: 1996-104672/199611

XRPX Acc No: N96-087724

Aircraft radar station - has units to fix differences of reflected signals and uses angle-speed selection unit to suppress spurious signals and measure phase different.

Patent Assignee: REZONANS RES CENTRE (REZO-R)

Inventor: AGZAMOV R Z; GARTOVANOV V G; MATSULEVICH A A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week RU 2037845 C1 19950619 RU 9330481 A 19930531 199611 B

Priority Applications (No Type Date): RU 9330481 A 19930531

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

RU 2037845 C1 6 G01S-013/58

...Abstract (Basic): forming unit (4) and through a difference signal forming unit (5) to an N-channel receiver (6) and also through an N-channel receiver (8) to receiver (6...

...The signals from receivers (6,8) are passed to the corresp. inputs of an angle-speed selection unit (7), where spurious signals are suppressed and the phase difference of the signals, reflected from the surface with a relative time delay, is measured. The resulting signals are passed through analogue-digital converters (9,11) to a path speed calculation unit (10), where the speed of the aircraft is calculated by formula...

25/3,K/4 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009633697

WPI Acc No: 1993-327246/199341

XRPX Acc No: N93-252413

Method of measuring sea surface parameters - scanning with probing beam in circle, recording only highlights which intersect scanning line twice and measuring phase difference between probing signals and reflected beams

Patent Assignee: UNIV MOSC LOMONOSOV (MOSU )

Inventor: KUZMINSKII A L; SHMALGAUZEN V I; TIKHONOV V A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week SU 1768964 Al 19921015 SU 4819464 A 19900227 199341 B

Priority Applications (No Type Date): SU 4819464 A 19900227

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

SU 1768964 A1 4 G01B-011/24

... with probing beam in circle, recording only highlights which intersect scanning line twice and measuring phase difference between probing signals and reflected beams

- ...Abstract (Basic): scanned twice are selected. Then the direction in which the highlight is displaced from the **phase difference** between the scanning signal and the modulation of the intensity of the scattered signal and the vector of the **velocity** of the mirror area is **determined** from the **delay time** between the two characteristic peaks and from the known diameter of the region being scanned...
- ... USE/ADVANTAGE In applied physics e.g. to design and build effective devices for the remote -action investigation of the properties of an agitated sea surface. Data content is increased. Bul...

25/3,K/5 (Item 3 from file: 350) DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007713872

WPI Acc No: 1988-347804/198849

XRAM Acc No: C88-153721 XRPX Acc No: N88-263559

Vertical seismic profiling formations in drilling operation - with drill bit source of seismic energy and drill bit sound and reflections in formation recorded by geometrical receiver element array set

Patent Assignee: GECO AS (GECO-N); GECO A/S (GECO-N); SCHLUMBERGER TECHNOLOGY CORP (SLMB )

Inventor: DESLER J F; FARMER P A; HALDORSEN J; HALDORSEN J B U

Number of Countries: 006 Number of Patents: 005

Patent Family:

		•							
Pat	ent No	Kind	Date	App	olicat No	Kind	Date	Week	
EΡ	294158	A	19881207	EP	88304955	A	19880531	198849	В
ИО	8702316	A	19881227					198906	
US	5148407	Α	19920915	US	88200211	Α	19880531	199240	
				US	89443095	Α	19891127		
				US	90604914	Α	19901029		
EΡ	294158	В1	19931201	ΕP	88304955	Α	19880531	199348	
DE	3885939	G	19940113	DE	3885939	Α	19880531	199403	
				ΕP	88304955	Α	19880531		

Priority Applications (No Type Date): NO 872316 A 19870602

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 294158 A E 3

Designated States (Regional): DE FR GB NL

US 5148407 A 11 G01V-001/28 Cont of application US 88200211 CIP of application US 89443095

EP 294158 B1 E 4 G01V-001/40

Designated States (Regional): DE FR GB NL

DE 3885939 G G01V-001/40 Based on patent EP 294158

- ... source of seismic energy and drill bit sound and reflections in formation recorded by geometrical receiver element array set
- ... Abstract (Basic): drill bit and from reflections in formation are recovered using geometrically extended array of separate receivers arranged in predetermined matrix. Received signals are analysed on basis of differences in arrival time...
- energy from the drill bit arrives at different receivers of an array at different times; collecting the seismic energy from the drill bit and from reflections of the seismic energy in the formation with the array of receivers, the array of receivers extending in breadth and length on the same order as the depth of the drill bit; recording data representing the seismic energy in the formation received by each receiver of the array; analyzing the frequency and amplitude of the recorded data of different receivers of the array to determine time or phase differences which have been created in the recorded data by the formation; exercising time delays or phase displacements on the recorded data to focus the array of elements on different volumes of the formation; focusing the receivers of the array on the drill bit; extracting a previously unknown acoustic signature of the...
- ...Abstract (Equivalent): 5) as the sound source comprises gathering seismic trace data from an array of surface receivers (1), performing velocity analysis (4A) to obtain formation velocity and apply movement corrections to each trace, and constructing a downward continuation filter to obtain...

26/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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04257296 \*\*Image available\*\*

WAVELENGTH DISPERSION MEASURING DEVICE FOR OPTICAL FIBER

PUB. NO.: 05-248996 [JP 5248996 A] PUBLISHED: September 28, 1993 (19930928)

INVENTOR(s): TAKARA HIDEHIKO KAWANISHI SATOKI

SARUWATARI MASATOSHI

APPLICANT(s): NIPPON TELEGR & TELEPH CORP <NTT> [000422] (A Japanese

Company or Corporation), JP (Japan)

APPL. NO.: 04-050926 [JP 9250926]

FILED: March 09, 1992 (19920309)

JOURNAL: Section: P, Section No. 1669, Vol. 18, No. 5, Pg. 91, January

07, 1994 (19940107)

#### ABSTRACT

... of different wavelengths are excited in synchronization and transmitted by an optical fiber to be **measured** 6. Because the group **speed** of **light** differs dependent upon the wavelength within the optical fiber 6, a delay difference is generated...

... of dispersion by this optical fiber 6 is converted into electric signal by a photo-receiver 14 and observed by a pulse waveform measuring device 15. The wavelength dispersion can thus be determined for each wavelength by measuring the relative delay time of photo-pulses of each wavelength.

26/3,K/2 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015429076 \*\*Image available\*\*
WPI Acc No: 2003-491218/200346

Method for forming distributed antennas in simulcasting system

Patent Assignee: LG ELECTRONICS INC (GLDS )

Inventor: JUNG H S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week KR 2003022907 A 20030319 KR 200155750 A 20010911 200346 B

Priority Applications (No Type Date): KR 200155750 A 20010911

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

KR 2003022907 A 1 H04B-007/00

## Abstract (Basic):

... of the distributed antennas upon simulcasting, so as to optimize a transceiving characteristic of a mobile terminal.

.. Signals of a mobile terminal (500) received in plural distributed antennas (410, 420) are transmitted to a CBS (Center Base Station) (100). The difference of paths between the mobile terminal (500) and the distributed antennas (410, 420) and the square root of the difference between...

...the distributed antennas(410,420) are multiplied, and a multiplied value is divided by a light velocity, to calculate a signal delay time between the distributed antennas(410,420). And the minimum installation distance between the distributed antennas(410,420) is calculated from the calculated signal delay time.

DIALOG(R) File 350: Derwent WPIX (c) 2004 Thomson Derwent. All rts. reserv.

014307945 \*\*Image available\*\* WPI Acc No: 2002-128648/200217

XRPX Acc No: N02-097073

Reciprocation time delay parameter estimation method for radio terminal of integrated wireless global positioning system, involves calculating propagation time of signal between base station and radio terminal

Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE ) Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
JP 2002006027 A 20020109 JP 2001121876 A 20010420 200217 B

Priority Applications (No Type Date): US 2000552897 A 20000420 Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes

JP 2002006027 A 10 G01s-005/14

Reciprocation time delay parameter estimation method for radio terminal of integrated wireless global positioning system, involves calculating propagation time of signal between base station and radio terminal

# Abstract (Basic):

information prestored in database respectively. The distance (d) between base station and radio terminal, is calculated and divided by velocity of light (c) to obtain propagation time of signal from base station to terminal. Reciprocation time delay (RTD) parameter is computed by doubling the propagation time.

For calculating reciprocation time delay (RTD) parameter such as pilot phase offset time delay parameter of a radio terminal of an integrated wireless GPS...

30/3,K/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

\*\*Image available\*\* 07158504 SYNCHRONIZATION DETECTION CIRCUIT

2002-026887 [JP 2002026887 A] PUB. NO.:

January 25, 2002 (20020125) PUBLISHED:

INVENTOR(s): UEDA KAZUYA KONISHI TAKAAKI AZAGAMI YASUSHI

APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD APPL. NO.: 2000-208097 [JP 2000208097] July 10, 2000 (20000710)

TOKUNAGA NAOYA

FILED:

ABSTRACT

... of increase in synchronization detection times by a synchronization protection circuit onto a digital broadcast receiver .

SOLUTION: This invention provides the synchronization detection circuit that uses a means that revises number of forward protection stages of the synchronization detection circuit before and after the synchronization detection so as to attain high-speed synchronization detection and the stability of synchronization detection operations thereby settling the stability even in the presence of an external disturbance such as signal momentary interruption, presence of noises and occurrence of multi - path with a fast synchronization detection time.

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(Item 2 from file: 347) 30/3.K/2

DIALOG(R) File 347: JAPIO

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\*\*Image available\*\* 06897330

GPS RECEIVER AND POSITIONING METHOD

2001-124840 [JP 2001124840 A] PUB. NO.:

May 11, 2001 (20010511) PUBLISHED:

INVENTOR(s): MIYANO AKIFUMI

ISHIGAKI TOSHIHIRO SASAKI MASAHIRO TSUCHIYA MANABU

APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD

APPL. NO.: 11-306681 [JP 99306681] October 28, 1999 (19991028) FILED:

GPS RECEIVER AND POSITIONING METHOD

ABSTRACT

PROBLEM TO BE SOLVED: To provide a GPS receiver with improved positioning accuracy by detecting reception of multipath and reflection waves for eliminating an abnormal measurement result.

SOLUTION: A signal from a GPS satellite is received (S1), a speed vector is calculated by using a Doppler shift in a positioning computer unit (S2), and using a pseudo...

... S4). An angle computing unit finds an angular difference (S5) between the azimuth of the speed vector found in the positioning computing unit and that of the position displacement vector found in the position displacement vector computing...

30/3,K/3 (Item 3 from file: 347)

DIALOG(R) File 347: JAPIO

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05870552 \*\*Image available\*\*

GPS RECEIVER

PUB. NO.: 10-153652 [JP 10153652 A] PUBLISHED: June 09, 1998 (19980609)

INVENTOR(s): MIYANO AKIFUMI

APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company

or Corporation), JP (Japan)

APPL. NO.: 08-313662 [JP 96313662] FILED: November 25, 1996 (19961125)

GPS RECEIVER

ABSTRACT

PROBLEM TO BE SOLVED: To calculate accurate speed and advance direction even if a multi - path signal is received by a GPS receiver .

30/3,K/4 (Item 4 from file: 347)

DIALOG(R) File 347: JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

05843280 \*\*Image available\*\*

INITIAL SYNCHRONIZATION METHOD IN ASYNCHRONOUS CELLULAR SYSTEM BETWEEN DS-CDMA BASE STATIONS AND RECEIVER

PUB. NO.: 10-126380 [JP 10126380 A]

PUBLISHED: May 15, 1998 (19980515)

INVENTOR(s): KOTOBUKI KOKURIYOU

SHU NAGAAKI
SHU TERUHEI
YAMAMOTO MAKOTO
TAKATORI SUNAO
SAWAHASHI MAMORU
ADACHI FUMIYUKI

APPLICANT(s): N T T IDO TSUSHINMO KK [000000] (A Japanese Company or

Corporation), JP (Japan)

YOZAN KK [000000] (A Japanese Company or Corporation), JP

(Japan)

APPL. NO.: 08-297859 [JP 96297859] FILED: October 23, 1996 (19961023)

INITIAL SYNCHRONIZATION METHOD IN ASYNCHRONOUS **CELLULAR** SYSTEM BETWEEN DS-CDMA BASE STATIONS AND **RECEIVER** 

**ABSTRACT** 

PROBLEM TO BE SOLVED: To attain high-speed cell search, high efficiency and miniaturization in the asynchronous cellular system between DS-CDMA base stations...

...is established, the correlation devices 28-1 to 28-n are used to receive a multi - path signal and to discriminate data through the RAKE synthesis. When searching peripheral cells, the matched...

30/3,K/5 (Item 5 from file: 347)

DIALOG(R) File 347: JAPIO

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05782478 \*\*Image available\*\*

METHOD AND DEVICE FOR SPREAD SPECTRUM DEMODULATION

PUB. NO.: 10-065578 [JP 10065578 A] PUBLISHED: March 06, 1998 (19980306)

INVENTOR(s): NAKANO TAKAYUKI

APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company

or Corporation), JP (Japan)

APPL. NO.: 09-127446 [JP 97127446] FILED: May 16, 1997 (19970516)

PRIORITY: 7-648,811 [US 648811-1996], US (United States of America),

May 16, 1996 (19960516)

### ABSTRACT

...TO BE SOLVED: To control reception and to improve reception quality so that a RAKE receiver can be operated with a phase having a maximum correlative level by estimating the correlative level of a multipath component in a transmission signal by connecting a means, with which the change speed of a demodulation path is estimated, to the correlative level retrieving means of a demodulator and performing the phase allocation of the RAKE receiver based on the estimated path change speed.

. . .

... signal of a maximum ratio by combining these outputs as a weighted sum. A change **speed estimating** means 21 provides **estimated** change **speed** 22 in a correlative level 13 of the **multipath** component detected by a correlative level retrieving means 12. This change speed 22 is inputted

30/3,K/6 (Item 6 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

05689715 \*\*Image available\*\*
SATELLITE-SIGNAL RECEIVER OF POSITION MEASURING SYSTEM

PUB. NO.: 09-304515 [JP 9304515 A]
PUBLISHED: November 28, 1997 (19971128)

INVENTOR(s): YUI KATSUO

APPLICANT(s): JAPAN RADIO CO LTD [000433] (A Japanese Company or

Corporation), JP (Japan) 08-120158 [JP 96120158]

APPL. NO.: 08-120158 [JP 96120158] FILED: May 15, 1996 (19960515)

SATELLITE-SIGNAL RECEIVER OF POSITION MEASURING SYSTEM

#### ABSTRACT

... signal restarted from a receiving satellite, whose receiving has been interrupted, in a satellite signal **receiver** of a position measuring system mounted on a moving body...

... position measuring information (code information of frequency and pseudo-noise codes) from a satellite in **tracking**, **determines** the **speed** and the direction of a moving body and the frequency fluctuation of an oscillator, obtains...

... received signal, and the accuracy is high. A position-measurement judging part 108 judges the multiple - path signal by investigating whether the received signal is located in the precision range of the...

30/3,K/7 (Item 7 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

05400177 \*\*Image available\*\*
ON-VEHICLE NAVIGATION DEVICE

PUB. NO.: 09-014977 [JP 9014977 A] PUBLISHED: January 17, 1997 (19970117)

INVENTOR(s): ANDO KATSUNORI

APPLICANT(s): ALPINE ELECTRON INC [470505] (A Japanese Company or

Corporation), JP (Japan) 07-184730 [JP 95184730]

APPL. NO.: FILED:

June 28, 1995 (19950628)

## ABSTRACT

... accurately indicate the present location of its own vehicle on a map even when a multipath interference occurs while the vehicle runs by computing the moving speed of the vehicle from the present location of the vehicle detected last time and the...

- ... data of its own vehicle are inputted to a navigation controller 10 from a GPS receiver 2. A map matching section 12 reads out map data containing the position of the...
- ... section 16 and displayed on a display device 4. Then the map matching section 12 computes the moving speed of the vehicle from the present location of the vehicle detected last time to the...
- ... detected this time in accordance with the actual shape of the road and, when the **computed** speed does not fall within a prescribed range, the the present location of the vehicle detected...

30/3,K/8 (Item 8 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

05267558 \*\*Image available\*\*
RECEIVER FOR MOVING BODY

PUB. NO.: 08-223058 [JP 8223058 A] PUBLISHED: August 30, 1996 (19960830)

INVENTOR(s): KURIOKA YUKIO

APPLICANT(s): FUJITSU TEN LTD [421134] (A Japanese Company or Corporation),

JP (Japan)

APPL. NO.: 07-020771 [JP 9520771] FILED: February 08, 1995 (19950208)

RECEIVER FOR MOVING BODY

#### ABSTRACT

PURPOSE: To satisfactorily hear the broadcast signal, which is affected by a multipath fault, by a moving receiver.

. . .

- ... of a moving body is inputted from a speed information input terminal 18 to the receiver for moving body and is given to a mode switching means 16. The multipath detection signal which is outputted from a multipath detection means 7 and is based on the IF signal obtained by frequency conversion of the reception signal is given to the mode switching means 16. This means 16 detects a multipath fault based on speed information and the multipath detection signal. Then, the output mode of the pound signal is switched from the stereo mode...
- ... If the speed of the moving body is equal to or exceeds a first previously determined speed, the output mode is not switched independently of the level of the multipath detection signal.

30/3,K/9 (Item 9 from file: 347)
DIALOG(R)File 347:JAPIO
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04423016 \*\*Image available\*\*
GPS RECEIVER

PUB. NO.: 06-066916 [JP 6066916 A] PUBLISHED: March 11, 1994 (19940311)

INVENTOR(s): TAKEUCHI HIROSHI

ITO TATSUO

APPLICANT(s): FUJITSU TEN LTD [421134] (A Japanese Company or Corporation),

JP (Japan)

APPL. NO.: 04-216152 [JP 92216152] FILED: August 13, 1992 (19920813)

JOURNAL: Section: P, Section No. 1752, Vol. 18, No. 306, Pg. 41, June

10, 1994 (19940610)

#### GPS RECEIVER

#### ABSTRACT

PURPOSE: To obtain the measured position of a moving body by **detecting** the **speed** abnormality obtained based on the Doppler shift of a frequency, and removing the effect of **multipaths** with the GPS, which utilizes satellites covering the entire earth...

... the position, speed, bearing and acceleration of a moving body are displayed on a GPS **receiver**. A speed-abnormality judging means 12, which judges the speed abnormality of the speed obtained...

 $\dots$  the computation exceeds the limit value of the moving body, is provided in the GPS receiver . A previous-computation result memory means 14 stores at least the position, speed, bearing and acceleration...

30/3,K/10 (Item 10 from file: 347) DIALOG(R)File 347:JAPIO

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04362377 \*\*Image available\*\*
RECEIVING EQUIPMENT

PUB. NO.: 06-006277 [JP 6006277 A] PUBLISHED: January 14, 1994 (19940114)

INVENTOR(s): YAJIMA HIROFUMI MATSUMARU ISAO

APPLICANT(s): CLARION CO LTD [325708] (A Japanese Company or Corporation),

JP (Japan)

APPL. NO.: 04-186316 [JP 92186316] FILED: June 19, 1992 (19920619)

JOURNAL: Section: E, Section No. 1535, Vol. 18, No. 202, Pg. 120,

April 08, 1994 (19940408)

#### ABSTRACT

PURPOSE: To provide an FM receiver in which an improvement rate of a tone quality is higher than a conventional technique...

... comparator 12, electric field intensity of a channel whose electric field intensity is higher and multi - path depth are selected by switches 13, 13', and its results are inputted to a CPU 14, respectively. Simultaneously, speed information from a car speed sensor 17 is inputted to the CPU 14 as fading frequency information. Such a membership function...

30/3,K/11 (Item 11 from file: 347) DIALOG(R)File 347:JAPIO

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03768427 \*\*Image available\*\*
VEHICLE POSITION DETECTING SYSTEM FOR ROAD-VEHICLE COMMUNICATION SYSTEM AND ON-VEHICLE DEVICE FOR ITS MOBILE STATION

PUB. NO.: 04-133527 [JP 4133527 A]

PUBLISHED: May 07, 1992 (19920507)

INVENTOR(s): MURAISHI AKIHIRO

APPLICANT(s): OKI ELECTRIC IND CO LTD [000029] (A Japanese Company or

Corporation), JP (Japan) 02-254323 [JP 90254323]

APPL. NO.: 02-254323 [JP 90254323] FILED: September 26, 1990 (19900926)

JOURNAL: Section: E, Section No. 1254, Vol. 16, No. 403, Pg. 30,

August 26, 1992 (19920826)

VEHICLE POSITION DETECTING SYSTEM FOR ROAD-VEHICLE COMMUNICATION SYSTEM AND ON-VEHICLE DEVICE FOR ITS MOBILE STATION

#### ABSTRACT

...section 34 at a logic level of '0' or '1'. In this case, a vehicle speed /distance measuring section 38 detects the speed of the vehicle 12 and supplies a frequency SP higher than a multipath fading frequency FD to a sampling circuit 36 and the circuit accurately reproduces a finely recessing and projecting pulse by inverting the phase of the auxiliary modulated waves and performing multipath fading.

30/3,K/12 (Item 12 from file: 347)

DIALOG(R) File 347: JAPIO

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00710036 \*\*Image available\*\*
MULTIPATH DETECTING METHOD

PUB. NO.: 56-030336 [JP 56030336 A] PUBLISHED: March 26, 1981 (19810326)

INVENTOR(s): TAKEDA SHIGEKI

APPLICANT(s): PIONEER ELECTRONIC CORP [000501] (A Japanese Company or

Corporation), JP (Japan)

APPL. NO.: 54-105226 [JP 79105226] FILED: August 18, 1979 (19790818)

JOURNAL: Section: E, Section No. 59, Vol. 05, No. 82, Pg. 101, May 29,

1981 (19810529)

## MULTIPATH DETECTING METHOD

## ABSTRACT

PURPOSE: To detect a multipath noise at a high speed without reference to the intensity of an electric field and that of the multipath noise by detecting the multipath noise by a difference in electric power between upper and lower side-band waves in a multipath noise detecting method... ... comparator 7, and consequently when detectors 5 and 6 differ in output, namely, when a multipath noise exists, both the outputs are difference, so that the output of comparator 7 will appear. Therefore, since the multipath noise can be detected at a high speed, this method is suitable for a mobile radio receiver.

30/3,K/13 (Item 1 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013097174 \*\*Image available\*\*
WPI Acc No: 2000-269046/200023

XRPX Acc No: N00-201269

Vehicle road traffic speed and volume measuring system used in traffic monitoring and management makes use of multi - path induced variations in ambient RF energy in the area of a sensor

Patent Assignee: UNIV JOHNS HOPKINS (UYJO )

Inventor: HOLM E D; RADCLIFFE S T

Number of Countries: 001 Number of Patents: 001

Patent Family: Kind Date Week Applicat No Patent No Kind Date 19961008 200023 B 20000104 US 9627195 А US 6011515 Α US 97944798 19971006 Α Priority Applications (No Type Date): US 9627195 P 19961008; US 97944798 A 19971006

Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 6011515 A 29 G01S-003/02 Provisional application US 9627195

Vehicle road traffic speed and volume measuring system used in traffic monitoring and management makes use of multi - path induced variations in ambient RF energy in the area of a sensor

Abstract (Basic):

... The resulting interaction between the two signals is then analyzed. The sensor includes an AM receiver acting as a bistatic radar receiver. The radio signal is produced by a cellular telephone base station (12).

The system is used in **measuring** vehicle road traffic **speed** and volume in traffic **monitoring** and management...

... cellular telephone base station (12

30/3,K/14 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

012743771 \*\*Image available\*\*
WPI Acc No: 1999-549888/199946

XRPX Acc No: N99-406775

High-speed multipoint-to-point indoor wireless data transfer system using directional antennas for e.g. high-speed computer network

Patent Assignee: LUCENT TECHNOLOGIES (LUCE )

Inventor: DRIESSEN P F; SABNANI K K

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week US 5936578 A 19990810 US 95587801 A 19951229 199946 B

Priority Applications (No Type Date): US 95587801 A 19951229 Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 5936578 A 16 H01Q-003/02

... multipoint-to-point indoor wireless data transfer system using directional antennas for e.g. high- speed computer network

Abstract (Basic):

transmitted at the selected wireless carrier frequency from any of the remote stations, has a **receiver** (20) in wireless communication with each remote stations. The beam width of the **receiver** directional antenna is made sufficiently narrow and selected to avoid reception of all **multipath** signals, so that received data signals are error free.

converter which transforms optical pulses on wired portions of the network into radio pulses. The **receiver** has a directional antenna (26) with a specified beam width and a converter which transforms...

...1 Gb/s with minimal bit error rate by setting beam width of transmitter and receiver antennas optimally. Reduces reception of multipath rays since transmitter and receiver antennas are properly oriented relative to each other...

... Receiver (20

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30/3, K/15
               (Item 3 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
012436424
             **Image available**
WPI Acc No: 1999-242532/199920
XRPX Acc No: N99-180383
 Discontinuous resultant values smoothing method for Kalmon filter used in
 mobile satellite base positioning system (SATPS) receiver
Patent Assignee: ROCKWELL INT CORP (ROCW )
Inventor: COLLEY J B
Number of Countries: 001 Number of Patents: 001
Patent Family:
              Kind
                     Date
                             Applicat No
                                            Kind
                                                   Date
                                                            Week
Patent No
                                                 19970915 199920 B
                                             Α
US 5883595
              Α
                   19990316 US 97929694
Priority Applications (No Type Date): US 97929694 A 19970915
Patent Details:
Patent No Kind Lan Pg
                                     Filing Notes
                         Main IPC
US 5883595
                     8 G01S-005/02
             Α
    resultant values smoothing method for Kalmon filter used in mobile
  satellite base positioning system (SATPS) receiver
Abstract (Basic):
           the second comparison value is the limit value. The resultant
    states are either position or velocity estimates of SATPS. An
    INDEPENDENT CLAIM is included for an apparatus for smoothing ground
    tracks in GPS receiver .
...Mitigates multipath effects. Avoids visual ground track
    discontinuities...
... The figure illustrates block diagram of SATPS receiver .
 30/3, K/16
               (Item 4 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
012220830
             **Image available**
WPI Acc No: 1999-026936/199903
Related WPI Acc No: 1999-510205
XRPX Acc No: N99-020770
  DS-CDMA cellular mobile radio of spread spectrum communication system -
 uses short code sequences for common control channel or short code
  sequences for traffic channel
Patent Assignee: YOZAN INC (YOZA-N); TAKAYAMA KK (TAKA-N); IZERU KK
Inventor: SHOU G; SUZUKI K; YAMAMAOTO M; ZHOU C; ZHOU X; YAMAMOTO M
Number of Countries: 029 Number of Patents: 013
Patent Family:
              Kind
Patent No
                     Date
                             Applicat No
                                            Kind
                                                   Date
                                                            Week
                   19981216
                                                  19980608
                                                            199903
EP 884856
               Α2
                             EP 98110472
                                             Α
JP 10341184
               Α
                   19981222
                             JP 97164919
                                             Α
                                                  19970609
                                                            199910
JP 11017652
                   19990122
                             JP 97184641
                                                 19970626
                                                            199914
              Α
                                             Α
CN 1202050
                             CN 98109592
                                                 19980608
                                                            199918
              Α
                   19981216
                                             Α
                   19990409
                             JP 97272251
                                             Α
                                                 19970918
                                                            199925
JP 11098116
               Α
                   19990430
                             JP 97299377
                                             Α
                                                 19971016
                                                           199928
JP 11122078
              Α
JP 11127134
               Α
                   19990511
                             JP 97308096
                                             Α
                                                 19971023
                                                           199929
JP 11177490
               Α
                   19990702
                             JP 97352472
                                             Α
                                                 19971205
                                                            199937
                   19990730
                             JP 9846180
                                             Α
                                                 19980212
                                                            199941
JP 11205193
               Α
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KR 99006788

US 6370130

А

19990125

B1 20020409

KR 9821241

US 9892914

19980609

19980608

Α

Α

200014

200227

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20020430 JP 97184641
                                                19970626 200230
                                            Α
JP 3278379
              B2
                  20030630 JP 97164919
                                                19970609 200343
                                            Α
JP 3421541
              B2
Priority Applications (No Type Date): JP 97352472 A 19971205; JP 97164919 A
  19970609; JP 97184641 A 19970626; JP 97272251 A 19970918; JP 97299377 A
  19971016; JP 97308096 A 19971023; JP 97329649 A 19971114; JP 97329646 A
  19971114
Patent Details:
                                    Filing Notes
Patent No Kind Lan Pg
                        Main IPC
             A2 E 58 H04B-001/707
EP 884856
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
   LI LT LU LV MC MK NL PT RO SE SI
                   10 H04B-001/26
JP 10341184, A
                   13 H04J-013/00
JP 11017652
             Α
                    6 H04J-013/00
JP 11098116
            Α
JP 11122078
                    9 H03H-015/02
            Α
JP 11127134
            Α
                    9 H04J-013/00
JP 11177490
           A
                   12 H04B-007/26
JP 11205193
                   13 H04B-001/707
             Α
                      H04B-001/69
KR 99006788
            Α
                      H04B-007/216
US 6370130
             В1
JP 3278379
                   13 H04B-001/707
                                    Previous Publ. patent JP 11017652
             B2
JP 3421541
                    9 H04B-001/26
                                    Previous Publ. patent JP 10341184
             B2
 DS-CDMA cellular mobile radio of spread spectrum communication system
...Abstract (Basic): ADVANTAGE - Capable of high speed cell search
   multimedia communication with high reception quality in connection of
   multipath fading ...
... Title Terms: CELLULAR ;
30/3,K/17
               (Item 5 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
            **Image available**
012104652
WPI Acc No: 1998-521564/199844
XRPX Acc No: N98-407326
 Radio receiver e.g. for mobile
                                    telephone - has clicks detected at
  discriminator output using coloured noise matched filter designed and
  adapted to click signature and shape as well as to desired signal
  characteristics
Patent Assignee: ERICSSON INC (TELF )
Inventor: BROWN D W; CULLEN D P; HARTLESS M L; HUGHES J V; ROYSTER D W;
Number of Countries: 081 Number of Patents: 006
Patent Family:
                                                           Week
                    Date
                                                  Date
Patent No
             Kind
                             Applicat No
                                           Kind
                            WO 98US4733
                                                 19980312 199844
                  19980924
WO 9842081
                                            Α
              A1
AU 9866972
                            AU 9866972
                                                 19980312
                                                          199907
                   19981012
              Α
                                            Α
                            WO 98US4733
                                                19980312
                                                          200008
GB 2339650
              Α
                   20000202
                                            Α
                             GB 9921597
                                            Α
                                                 19990913
US 6032048
           A
                   20000229
                             US 97818284
                                            Α
                                                 19970317
                                                          200018
BR 9808269
                  20000516
                             BR 988269
                                                 19980312
                                                          200035
              Α
                                            Α
                             WO 98US4733
                                                 19980312
                                            Α
                  20000614 CN 98805165
                                                 19980312
                                                          2.00048
CN 1256811 A
                                            Α
Priority Applications (No Type Date): US 97818284 A 19970317
Patent Details:
                        Main IPC
                                     Filing Notes
Patent No Kind Lan Pg
WO 9842081
             A1 E 35 \text{ H}04B-001/10
   Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU
   CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR
   LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
   TR TT UA UG UZ VN YU ZW
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Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

H04B-001/10 Based on patent WO 9842081 AU 9866972 Based on patent WO 9842081 GB 2339650 H04B-001/10 А US 6032048 H04B-015/00 Α H04B-001/10 Based on patent WO 9842081 BR 9808269 Α CN 1256811 Α H04B-001/10

Radio receiver e.g. for mobile telephone -

... Abstract (Basic): The receiver includes an antenna to receive radio signals. A signal discriminator discriminates a desired signal based...

...corresponding to the desired signal which includes the desired signal and click noise caused by multi - path fading. A signal processor detects and reduces or eliminate objectionable click noise from the output...

...received radio signals. The desired signal contains both audible and sub-audible information, the radio receiver also has a low speed data detector connected to the output of the signal processor detects the sub-audible information. The signal...

...ADVANTAGE - Effectively removes noise at radio **receiver** resulting from **multi - path** fading while at same time preserving portion of desired signal information. Eliminates audible click noise...

30/3,K/18 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

011960240 \*\*Image available\*\* WPI Acc No: 1998-377150/199832

XRPX Acc No: N98-294973

Signal interference suppressing method for GPS based mobile communication system - involves determining mixed speed range of vehicle for effecting interference suppression, based on predefined relation satisfying specific boundary conditions

Patent Assignee: TRIMBLE NAVIGATION LTD (TRIM-N)

Inventor: PON R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 5771456 A 19980623 US 96694845 A 19960809 199832 B

Priority Applications (No Type Date): US 96694845 A 19960809 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes US 5771456 A 10 H04Q-007/20

- ... involves determining mixed speed range of vehicle for effecting interference suppression, based on predefined relation satisfying specific boundary conditions
- ...Abstract (Basic): determining the location of a moving vehicle (11) carrying a transmitting antenna (13) and a **receiver** (15). The signals transmitted from several locations determination units (17A-17D) is received and processed. The location co-ordinates for **detecting** position of moving vehicle and **speed** or magnitude of moving vehicle is computed. The computed value set to satisfy a specific...
- ...Then, the maximum speed range for reducing the multipath signal interference during signal reception, is determined based on first predefined relations. The speed of...

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DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
             **Image available**
011947935
WPI Acc No: 1998-364845/199832
XRPX Acc No: N98-284974
  Radio system terminal unit for transmission signal spectrum spreading -
  performs partial search using stored alternative code to demodulate data,
  with full searching process then performed using proper code
Patent Assignee: SONY CORP (SONY )
Inventor: NARUSE T; YAMAMOTO K
Number of Countries: 028 Number of Patents: 005
Patent Family:
                                            Kind
                                                    Date
                                                            Week
Patent No
              Kind
                     Date
                             Applicat No
                                                 19980114
                                                           199832 B
EP 853389
               A2
                  19980715
                             EP 98300247
                                             Α
                                             Α
                                                 19970114
                                                           199841
JP 10200508
               Α
                   19980731
                             JP 974990
                                                 19971230 199952
                   19981026
                             KR 9779667
                                             Α
KR 98070300
               Α
                   20000606
                             US 97998385
                                             Α
                                                 19971224 200033
US 6072822
               Α
                  19980722
                             CN 98103974
                                             Ā
                                                 19980114 200270
CN 1188356
               A
Priority Applications (No Type Date): JP 974990 A 19970114
Patent Details:
Patent No Kind Lan Pg
                        Main IPC
                                     Filing Notes
              A2 E 15 H04B-001/707
EP 853389
   Designated States (Regional): AL AT BE CH DE DK ES FI FR GB GR IE IT LI.
   LT LU LV MC MK NL PT RO SE SI
                    10 H04J-013/04
JP 10200508
             Α
KR 98070300
              Α
                       H04B-007/02
US 6072822
                       H04J-013/04
              Α
CN 1188356
                       H04J-013/04
              Α
... Abstract (Basic): The terminal unit has a searcher which searches the
    paths of signals received from multipaths . A number of fingers
    de-spread the received signals for the searched paths and perform...
                                    telephone system...
... USE - E.g. CDMA type cellular
                             searching when demodulated data cannot be
...ADVANTAGE - High speed
    obtained...
 30/3,K/20
               (Item 8 from file: 350)
DIALOG(R) File 350: Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
011933423
             **Image available**
WPI Acc No: 1998-350333/199831
XRPX Acc No: N98-273513
  Receiving apparatus e.g. for CDMA type cellular telephone system -
  has phase of Pseudorandom noise shifted every predetermined number of
  chips, correlation values with received code are obtained with despread
  signal levels are cumulated and correlation values obtained
Patent Assignee: SONY CORP (SONY )
Inventor: NARUSE T
Number of Countries: 028 Number of Patents: 005
Patent Family:
Patent No
                     Date
                             Applicat No
                                            Kind
                                                    Date
              Kind
EP 852431
               A2
                  19980708
                             EP 98300035
                                             Α
                                                 19980106
                                                           199831
                   19980731
                             JP 97394
                                             Α
                                                 19970106
                                                           199841
               Α
JP 10200505
                             CN 98105793
                                             Α
                                                 19980106
                                                           199913
CN 1198625
                   19981111
               Α
                             KR 9777168
                                             Α
                                                 19971229
                                                           199952
                   19981026
KR 98070261
               Α
                                                           200035
                   20000613 US 97998390
                                             Α
                                                 19971224
US 6075809
               Α
Priority Applications (No Type Date): JP 97394 A 19970106
Patent Details:
                                     Filing Notes
Patent No Kind Lan Pg
                         Main IPC
              A2 E 28 H04B-001/707
EP 852431
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Designated States (Regional): AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

JP 10200505 A 19 H04J-013/04 CN 1198625 A H04J-013/04 KR 98070261 A H04B-001/69 US 6075809 A H04J-013/04

Receiving apparatus e.g. for CDMA type cellular telephone system...

...Abstract (Basic): The apparatus comprises a searcher which searches paths of signals received from multi - paths. Several fingers de-spread the received signals for the searched paths and demodulating data. A...

...ADVANTAGE - Performs searching process at high speed , and securely designates optimum paths for fingers...

The second secon

... Title Terms: CELLULAR;

30/3,K/21 (Item 9 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011650068 \*\*Image available\*\*
WPI Acc No: 1998-066976/199807

XRPX Acc No: N98-052802

Vehicle mounted GPS satellite signal receiver - has calculator that computes position and velocity of moving body based on signal from satellite when error generation is detected in measured value

Patent Assignee: JAPAN RADIO CO LTD (NIUR )
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No Kind Date Applicat No Kind Date Week
JP 9304515 A 19971128 JP 96120158 A 19960515 199807 B

Priority Applications (No Type Date): JP 96120158 A 19960515 Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
JP 9304515 A 6 G01S-011/02

Vehicle mounted GPS satellite signal receiver - ...

...has calculator that computes position and velocity of moving body based on signal from satellite when error generation is detected in measured

... Abstract (Basic): The **receiver** includes a prediction part (112) that receives the frequency and code information on the pseudo noise code from the satellite during **tracking**. The prediction part decides the **velocity** and direction of moving body and frequency variation of the oscillator based on received information...

...correction of the measured value based on the accuracy of the prediction part. A position calculator (110) computes the position and velocity of the moving body based on the input signal, when the error in the measured...

...ADVANTAGE - Enables effective distinction of multipath signal. Enables accurate position detection...

30/3,K/22 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

011624305 \*\*Image available\*\*
WPI Acc No: 1998-041433/199804

XRPX Acc No: N98-033231

Movable object relative velocity determining apparatus - uses function of difference between shifted frequency of received first coherent signal and selected frequency of second coherent signal

Patent Assignee: NORTHROP GRUMMAN CORP (NOTH )

Inventor: COLE E L; EINOLF C W; MCSHANE J L; NATHANSON H C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 5696514 A 19971209 US 96608424 A 19960228 199804 B

Priority Applications (No Type Date): US 96608424 A 19960228 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes US 5696514 A 10 G01S-013/06

Movable object relative velocity determining apparatus...

- ...Abstract (Basic): carried by a moveable object transmitting a first coherent signal at a selected frequency. A receiver separate from the moveable object fitted with generator for generating a second coherent signal at the selected frequency. A receiver receives the first coherent signal having a shifted frequency dependent upon the relative velocity. A device is used for determining the relative velocity of the moveable object with respect to the receiver device as a function of a difference between the shifted frequency of the received first...
- ... The **receiver** (7) may still receive the signal, which may be reflected off of a point (H...
- ...at point (J) when in the position (C). The triangulation positions are calculated using the **multi-paths** (BH7) and (CJ7), respectively for positions (B) and (C...
- ...ADVANTAGE Allows tracking low speed object such as taxing aircraft and even person such as prisoner. Can accommodate for temporary...

30/3,K/23 (Item 11 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011576154 \*\*Image available\*\*
WPI Acc No: 1997-552635/199751

XRPX Acc No: N97-460505

Spread spectrum multi - path demodulator assigning reception timing for estimated range of correlation level - has averaging circuit for correlation levels, moving speed display unit for determining and displaying relative speed between transmitter and receiver, and correlation prediction circuit

Patent Assignee: MATSUSHITA ELECTRIC IND CO LTD (MATU ); MATSUSHITA DENKI SANGYO KK (MATU ); NAKANO T (NAKA-I)

Inventor: NAKANO T

Number of Countries: 011 Number of Patents: 010

Patent Family:

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Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 808031	A2	19971119	EP 97105863	Α	19970409	199751	В
JP 10065578	3 A	19980306	JP 97127446	Α	19970516	199820	
CA 2205352	Α	19971116	CA 2205352	Α	19970514	199823	
KR 97078067	7 A	19971212	KR 9718892	Α	19970516	199850	
MX 9703356	A1	19971101	MX 973356	Α	19970508	199902	
US 5903596	Α	19990511	US 96648811	Α	19960516	199926	
CN 1166733	Α	19971203	CN 97111187	Α	19970515	200154	
CA 2205352	С	20020212	CA 2205352	Α	19970514	200221	
JP 3310194	В2	20020729	JP 97127446	Α	19970516	200256	
KR 415034	В	20040214	KR 9718892	Α	19970516	200441	

Priority Applications (No Type Date): US 96648811 A 19960516 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes A2 E 26 H04B-001/707 EP 808031 Designated States (Regional): DE FI FR GB SE JP 10065578 A 16 H04B-001/707 CA 2205352 Α H04B-001/69 H04B-001/69 KR 97078067 Α H04B-001/00 MX 9703356 A1 H04K-001/00 US 5903596 Α H04B-001/707 CN 1166733 A C E H04B-001/69 CA 2205352 17 H04B-001/707 Previous Publ. patent JP 10065578 JP 3310194 B2 KR 415034 H04B-001/69 Previous Publ. patent KR 97078067 Spread spectrum multi - path demodulator assigning reception timing for estimated range of correlation level... ... has averaging circuit for correlation levels, moving speed display unit for determining and displaying relative speed between transmitter and receiver, and correlation prediction circuit

- ... Abstract (Basic): A demodulation system has a demodulator for processing a selected number of multipath components of a transmission signal in accordance with reception timing assignments. A correlation level search device determines a correlation level corresponding to a reception timing for each of the multipath components...
- ...the reception timing assignments to the demodulator in accordance with the correlation levels and the **estimated** rates of change. A moving speed display unit determines and displays and estimated relative speed between a transmitter of the transmission signal and the demodulation device based on the estimated rates of change of the correlation levels of the multipath components...
- ... USE/ADVANTAGE E.g. for cellular and portable telephones . Provides improved reception for mobile communications unit.

(Item 12 from file: 350) 30/3, K/24DIALOG(R) File 350: Derwent WPIX (c) 2004 Thomson Derwent. All rts. reserv. 010171216 \*\*Image available\*\* WPI Acc No: 1995-072469/199510 XRPX Acc No: N95-057265 path wave interference detector for radio receiver - by comparing pilot signal and reproduced pilot signal phases to determine path wave distortion start of multi Patent Assignee: FORD MOTOR CO (FORD ) Number of Countries: 001 Number of Patents: 002 Patent Family: Patent No Kind Date Applicat No Kind Week JP 6350541 Α 19941222 JP 93132100 Α 19930602 199510 B JP 3483270 B2 20040106 JP 93132100 19930602 200405 Α Priority Applications (No Type Date): JP 93132100 A 19930602 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes 9 H04B-017/00 JP 6350541 Α JP 3483270 9 H04B-001/10 Previous Publ. patent JP 6350541 B2

Multi path wave interference detector for radio receiver - ... ...by comparing pilot signal and reproduced pilot signal phases to determine start of multi path wave distortion

- ...Abstract (Basic): The interference detector detects the start of multi path wave interference. The change in phase for a stereo pilot signal and a reproduced pilot signal are compared, using an FM stereophonic broadcasting receiver (10...
- ...are compared, to determine if the phase difference is within permissible limits. The start of multi path wave interference is determined when the phase difference exceeds a predetermined value...
- ...ADVANTAGE Low multi path wave distortion through speedy detection .

30/3,K/25 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

009932856 \*\*Image available\*\*
WPI Acc No: 1994-200567/199424

XRPX Acc No: N94-157724

Speed based multipath corrections for vehicle radios - where vehicle speed is measured and above one speed reference antenna switching is used while below another speed reference filtering is applied

Patent Assignee: FORD MOTOR CO (FORD ); FORD MOTOR CO LTD (FORD )

Inventor: PORAMBO S P

Number of Countries: 018 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 9413064 A1 19940609 WO 93GB2252 A 19931102 199424 B US 5379449 A 19950103 US 92979955 A 19921123 199507

Priority Applications (No Type Date): US 92979955 A 19921123 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9413064 A1 E 14 H04B-001/10

Designated States (National): JP

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

US 5379449 A 6 H04B-007/08

Speed based multipath corrections for vehicle radios...

- ...where vehicle speed is measured and above one speed reference antenna switching is used while below another speed reference filtering is applied
- ...Abstract (Basic): The vehicle radio system includes a speed dependant correction for multipath interference. The vehicle audio system (10) has a conventional FM stereo radio receiver. Diversity antennas (ANT1, ANT2) are connected to a switch (12) which delivers a signal to ...
- ...A detector (16) provides a signal when multipath interference is present. A central vehicle processor (20) provides a speed signal. These signals are...
- ... USE/ADVANTAGE Diversity antenna systems. Utilises speed information to apply multipath corrections more usefully...
- ...Abstract (Equivalent): The method for controlling a radio receiver in a vehicle involves generating a speed signal proportional to the speed at which the vehicle moves, receiving a radio signal at the radio receiver, and generating a multipath signal upon detection of the presence of multipath distortion in the radio signal. The method also involves selecting a corrective action within the radio receiver in response to the multipath signal and the speed signal...

- ... The radio receiver includes diversity antennae and the corrective action involves switching between the diversity antennae if the...
- ...than a first predetermined speed. One of a number of speed ranges corresponding to the speed signal is identified . The corrective action is selected in response to the identification ...
- ...ADVANTAGE Improves overall performance of vehicle radio system in presence of multipath , by integrating and coordinating operation of various multipath strategies in manner adapted to automotive environment...
- ... Title Terms: MULTIPATH ;

30/3,K/26 (Item 14 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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003572541

WPI Acc No: 1983-C0733K/198306

XRPX Acc No: N83-027071

Multi - path Doppler shift vertical speed measurement system - filters out component caused by relative radial speed of target and determines speed from remaining component

Patent Assignee: GRUMMAN AEROSPACE CORP (GRUA )

Inventor: BLUMLING J P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Kind Date Applicat No Kind Date Week Patent No 198306 B US 4369444 A 19830118

Priority Applications (No Type Date): US 80205180 A 19801110

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 4369444 A 14

Multi - path Doppler shift vertical speed measurement system...

- ...filters out component caused by relative radial speed of target and determines speed from remaining component
- ... Abstract (Basic): above the ground and provides at its output a signal, E3 representative of HR. A receiver -processor, in communication with the transmitter, processes e.m. energy reflected from the target...
- ... The receiver -processor includes a detector adapted to be responsive to two components of the e.m...

```
File
       2:INSPEC 1969-2004/Aug W3
         (c) 2004 Institution of Electrical Engineers
File
       6:NTIS 1964-2004/Aug W3
       (c) 2004 NTIS, Intl Cpyrght All Rights Res
       8:Ei Compendex(R) 1970-2004/Aug W2
File
         (c) 2004 Elsevier Eng. Info. Inc.
      34:SciSearch(R) Cited Ref Sci 1990-2004/Aug W3
File
         (c) 2004 Inst for Sci Info
     35:Dissertation Abs Online 1861-2004/Jul
File
         (c) 2004 ProQuest Info&Learning
      65:Inside Conferences 1993-2004/Aug W3
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         (c) 2004 BLDSC all rts. reserv.
      94:JICST-EPlus 1985-2004/Jul W4
File
         (c) 2004 Japan Science and Tech Corp(JST)
     95:TEME-Technology & Management 1989-2004/Jun W1
File
         (c) 2004 FIZ TECHNIK
File 99: Wilson Appl. Sci & Tech Abs 1983-2004/Jul
         (c) 2004 The HW Wilson Co.
File 144: Pascal 1973-2004/Aug W2
         (c) 2004 INIST/CNRS
File 233:Internet & Personal Comp. Abs. 1981-2003/Sep
         (c) 2003 EBSCO Pub.
File 239:Mathsci 1940-2004/Oct
         (c) 2004 American Mathematical Society
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
         (c) 2002 The Gale Group
File 603:Newspaper Abstracts 1984-1988
         (c) 2001 ProQuest Info&Learning
File 483: Newspaper Abs Daily 1986-2004/Aug 19
         (c) 2004 ProQuest Info&Learning
File 248:PIRA 1975-2004/Aug W2
         (c) 2004 Pira International
Set
        Items
                Description
                ((ESTIMAT??? OR CALCULAT??? OR COMPUT??? OR DETERMIN??? OR
       381346
S1
             EVALUAT ??? OR ANALY ???? OR FIND ??? OR SEARCH ??? OR MONITOR ???
             OR TRACK??? OR GAUG??? OR MEASUR??? OR IDENTIF??? OR SENS??? -
             OR DETECT???) (5N) (SPEED?? OR ACCLERAT??? OR VELOCIT???))
                (RECEIVER???? OR TRANSCEIVER?? OR CELLULAR?? OR CELLPHON??
S2
      1123445
             OR CELL()PHON??) OR ((MOBILE?? OR REMOTE?? OR WIRELESS?? OR W-
             IRE()LESS?? OR CELLULAR??)(3N)(UNIT? OR DEVICE? ? OR APPARATU-
             S?? OR TERMINAL?? OR PHONE? OR TELEPHONE?))
S3
       117462
                TIME (3N) DELAY?? OR TIMEDELAY???
                MULTI() PATH?? OR MULTIPATH?? OR MULTIPLEPATH OR MULTIPLE() -
S4
        45843
             PATH??
               PHASE??(5N)DIFFERENC??
        45509
$5
                (SPEED OR VELOCIT???) (1N) LIGHT??
S 6
        13733
        16810 CARRIER (2N) FREQUEN???
s7
        19959 SAMPL???(2N) PERIOD??
S8
        2124
                CHANNEL??(2N)COEFFICIENT??
S 9
        18256
                PHASE??(3N)COEFFICIEN??
S10
S11
         6794
                WIENER??(3N)FILTER??
                AU=(DA()ROCHA A? OR DAROCHA A? OR DA()ROCHA, A? OR DAROCHA,
S12
          171
             A? OR GUILBAUD M? OR GUILBAUD, M?)
         7663
                S1 AND S2
S13
          184
                S13 AND S3
S14
           19
                S14 AND S4
S15
S16
           13
                RD (unique items)
S17
           82
                S13 AND S5
           35
                S13 AND S6
S18
           21
                S13 AND S7
S19
           9
                S13 AND S8
S20
           9
                S13 AND S8
S21
           3
                S13 AND S9
S22
                S13 AND S10
S23
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S24	4	S13 AND S11
S25	4	RD (unique items)
S26	0	S23 AND S21
S27	154	S13 AND (S17 OR S18 OR S19 OR S20 OR S22 OR S23)
S28	0	S13 AND (S17 AND S18)
S29	5	RD S23 (unique items)
S30	5	S29 NOT (S25 OR S15)
S31	1	RD S22 (unique items)
S32	0	S12 AND S13

```
(Item 1 from file: 2)
DIALOG(R)File
                2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.
         INSPEC Abstract Number: B2002-11-6250F-204
 Title: Doppler-adaptive multipath window tracking for WCDMA FDD-uplink
 Author(s): Held, I.; Klein, O.
 Author Affiliation: R&D Radio Commun., Ericsson Eurolab Deutschland GmbH,
Nuremberg, Germany
  Conference Title: Vehicular Technology Conference. IEEE 55th Vehicular
Technology Conference. VTC Spring 2002 (Cat. No.02CH37367)
                                                               Part vol.2
p.713-17 vol.2
  Publisher: IEEE, Piscataway, NJ, USA
  Publication Date: 2002 Country of Publication: USA
                                                          4 vol.2118 pp.
                          Material Identity Number: XX-2002-01564
  ISBN: 0 7803 7484 3
  U.S. Copyright Clearance Center Code: 0-7803-7484-3/02/$17.00
  Conference Title: Vehicular Technology Conference. IEEE 55th Vehicular
Technology Conference. VTC Spring 2002
                                  Conference Location: Birmingham, AL, USA
  Conference Date: 6-9 May 2002
  Language: English
  Subfile: B
  Copyright 2002, IEE
 Title: Doppler-adaptive multipath window tracking for WCDMA FDD-uplink
  ... Abstract: 3GPP) UTRA FDD (WCDMA) uplink (UL) mobile communication
system includes a path searcher to estimate time delays of channel taps
to be coherently combined. Due to varying propagation delay between mobile
... novel Doppler-adaptive WTA and compares the behavior of the different
algorithms by means of tracking accuracy, tracking speed, and required search window size. The simulation studies show that the
proposed Doppler-adaptive algorithm reduces the implementation...
 ...Descriptors: cellular radio...
... multipath channels...
...radio receivers;
  ...Identifiers: time delay estimation...
... tracking speed;
 16/3,K/2
             (Item 2 from file: 2)
DIALOG(R) File
              2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.
          INSPEC Abstract Number: A9724-9210-024, B9712-6320E-013
 Title: Source track localization via multipath correlation matching
  Author(s): Westwood, E.K.; Knobles, D.P.
  Author Affiliation: Appl. Res. Lab., Texas Univ., Austin, TX, USA
  Journal: Journal of the Acoustical Society of America vol. 102, no. 5,
        p.2645-54
pt.1
  Publisher: Acoust. Soc. America through AIP,
  Publication Date: Nov. 1997 Country of Publication: USA
  CODEN: JASMAN ISSN: 0001-4966
  SICI: 0001-4966(199711)102:5:1L.2645:STLM;1-S
  Material Identity Number: J001-97014
 U.S. Copyright Clearance Center Code: 0001-4966/0001-4966/97/102(5)/2561/
10/$1
  Language: English
  Subfile: A B
  Copyright 1997, IEE
 Title: Source track localization via multipath correlation matching ...Abstract: oceanic waveguide is presented. The method involves cross
```

correlating the measured signals at horizontally separated receivers over

a period of time and identifying the traces on the resulting correlogram in terms of the ray paths at each receiver that produce them. Range and bearing information is contained in the structure of the multipath correlation traces. Environmental parameters are used as inputs to a ray model to obtain the...

...t as functions of range R. The t/sub j/(R) functions for the ray multipaths are used to obtain simulated correlogram time delays given a source track and receiver geometry. Constant- velocity, constant-depth source tracks are parametrized by four variables, and a nonlinear optimization algorithm is used to find the...

... intervals and correlation traces produced by rays with 3-15 traversals of the water column. **Receiver** separation, unknown because of experimental uncertainties, is also obtained.

... Identifiers: multipath correlation matching...

...horizontally separated receivers; ...

... multipath correlation traces...

...constant- velocity constant-depth source tracks ;

16/3,K/3 (Item 3 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

5398605 INSPEC Abstract Number: B9611-6250F-183, C9611-3370H-014

Title: A statistical analysis of the power control error in fast Rayleigh fading

Author(s): Larsson, A.; Maseng, T.

Author Affiliation: Dept. of Appl. Electron., Lund Univ., Sweden

Conference Title: 1996 IEEE 46th Vehicular Technology Conference. Mobile Technology for the Human Race (Cat. No.96CH35894) Part vol.2 p.1140-4 vol.2

Publisher: IEEE, New York, NY, USA

Publication Date: 1996 Country of Publication: USA 3 vol. xxxix+1887 pp.

ISBN: 0 7803 3157 5 Material Identity Number: XX96-01589 U.S. Copyright Clearance Center Code: 0 7803 3157 5/96/\$5.00

Conference Title: Proceedings of Vehicular Technology Conference - VTC Conference Date: 28 April-1 May 1996 Conference Location: Atlanta, GA, USA

Language: English Subfile: B C

Copyright 1996, IEE

Abstract: The effect of fast multipath fading on power control is analysed for a mobile telephone system. A new statistical model for the single path, Rayleigh faded channel is presented. From this model the probability for the relative change in signal amplitude at different time delays and mobile speeds is determined. The maximum time delay allowed for a desired accuracy in the loop may then be found.

Descriptors: cellular radio...

... multipath channels

...Identifiers: mobile telephone system...

... time delays;

16/3,K/4 (Item 4 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

4764187 INSPEC Abstract Number: A9420-9385-163, B9410-7710D-136

Title: Model-based matched filter processing for delay-Doppler measurement in a multipath dispersive ocean channel

Author(s): Hermand, J.-P.

Author Affiliation: SACLANT Undersea Res. Centre, La Spezia, Italy

Part vol.1 p.I306-11 vol.1

Publisher: IEEE, New York, NY, USA

Publication Date: 1993 Country of Publication: USA 3 vol. (xxiii+491+509+502) pp.

ISBN: 0 7803 1385 2

U.S. Copyright Clearance Center Code: 0 7803 1385 2/93/\$3.00

Conference Title: Proceedings of OCEANS '93

Conference Sponsor: Oceanic Eng. Soc. IEEE and its Victoria Chapter; B.C.

Trade Dev. Corp

Conference Date: 18-21 Oct. 1993 Conference Location: Victoria, BC,

Canada

Language: English Subfile: A B

Title: Model-based matched filter processing for delay-Doppler measurement in a multipath dispersive ocean channel

...Abstract: time-bandwidth product signals transmitted in an ocean medium are distorted as a result of multipath and time dispersive propagation. The delay -Doppler resolution performance of a model-based matched filter and a conventional matched filter are...

... Doppler effects. The medium Green's function was modelled using generalized ray theory, and sound **speed** data **measured** in situ. Results demonstrate that both the range and relative velocity of the source and **receiver** were determined correctly if the medium-induced distortion had been modelled properly. Model-based matched...

...Identifiers: multipath dispersive ocean channel

16/3,K/5 (Item 5 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

02449487 INSPEC Abstract Number: A85059803

Title: Effect of sound- speed profiles on differential time - delay estimation

Author(s): Robinson, E.R.; Quazi, A.Z.

Author Affiliation: Naval Underwater Syst. Center, New London, CT, USA Journal: Journal of the Acoustical Society of America vol.77, no.3

Publication Date: March 1985 Country of Publication: USA

CODEN: JASMAN ISSN: 0001-4966

Language: English

Subfile: A

Title: Effect of sound- speed profiles on differential time - delay estimation

...Abstract: various sound-speed profiles is being studied in order to estimate the impact of refracted multipath acoustic energy on differential time - delay estimation (TDE). To do this, the authors utilize the generic sonar model to computer the crosscorrelation function for an array of two separated receivers in realistic ocean environments. The effects of the obtained correlogram peaks that show the differential time delays were compared with those predicted when assuming isovelocity profiles. The influence of a single source's range and bearing, as well as the vertical separation of the receivers on the correlograms, is demonstrated for each environment considered. Their results indicate that TDE may...

... selected sound-speed profile. Also, the Cramer-Rao lower bounds to the standard deviation of time - delay errors at various signal-to-noise ratios are compared with the results that were derived...

...Identifiers: differential time - delay estimation...

16/3,K/6 (Item 6 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

01466215 INSPEC Abstract Number: B80011207

Title: Sonar signal processing for source state estimation

Author(s): Carter, G.C.

Author Affiliation: Naval Underwater Systems Center, New London, CT, USA Conference Title: Eascon '79. IEEE Electronics & Aerospace Systems Conference Part II p.386-95

Publisher: IEEE, New York, NY, USA

Publication Date: 1979 Country of Publication: USA xix + 335 pp.

Conference Sponsor: IEEE

Conference Date: 9-11 Oct. 1979 Conference Location: Arlington, VA,

Language: English

Subfile: B

Abstract: An overview of applied research in passive sonar signal processing and optimal time delay estimation techniques for naval systems is presented. The naval problem that motivates time delay estimation is the source state estimation problem. A discussion of this problem in terms of...

... a moving acoustic source is presented. An analytically tractable approach of decoupling the problem into multipath and planar components is followed. Optimum bearing and range estimators are presented for the planar problem and related to the optimum time delay vector estimator. Suboptimum realizations are considered together with the effects of source motion and receiver positional uncertainty. Estimators for source velocity are also presented that utilize relative time compression or generalized Doppler.

... Identifiers: optimal time delay;

16/3,K/7 (Item 1 from file: 6)

DIALOG(R) File 6:NTIS

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2093665 NTIS Accession Number: PB98-168545/XAB

Prestandaanalys av en Metod foer Lokalisering av Bredbandig Undervattenskaella med Singelhydrofon (Performance Analysis of a Method for Localization of a Broadband Underwater Source Using a Single Hydrophone)

Foersvarets Forskningsanstalt, Stockholm (Sweden). Div. of Guidance and Control, Materials and Underwater Sensors.

Corp. Source Codes: 063330023

Report No.: FOA-R-97-00621-409-SE

Dec 97 20p

Nilsson, B.

Languages: Swedish

Journal Announcement: GRAI9823

Text in Swedish; summary in English.

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NTIS Prices: PC A03/MF A01

... broadband underwater source using a single hydrophone only. In this method the distortion form the multipath in shallow waters is interpreted since the distortion is specific for the various positions of the source, we can estimate the source range, depth and velocity (assuming the source moves uniformly). In this report, we study the deviations that arise when...

... sound velocity profile (svp) is not a constant, that is when we cannot assume is velocity . Using a benchmark ray tracking program for an arbitrary svp, we compute the impulse response at the receiver for a large number of source positions. The impulse response gives us the time we need as a benchmark for comparison with those of our localization algorithm. A set...

Descriptors: Hydrophones; \*Underwater sound sources; \* Multipath \*Acoustic velocity; \*Profiles; Underwater acoustics; transmission; Underwater sound transmission; Sound localization; Acoustic sources; Acoustic ranges...

(Item 2 from file: 6) 16/3,K/8

DIALOG(R)File 6:NTIS

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1999633 NTIS Accession Number: PB97-144422

Passiv Lokalisering av Bredbandig Ljudkaella med Enkelhydrofon (Passive Localization of a Broadband Source Using a Single Hydrophone)

Sangfelt, E.; Nilsson, B.; Granath, B.

Foersvarets Forskningsanstalt, Stockholm (Sweden). Avdelningen foer Styrning, Material och Undervattenssensorer.

Corp. Source Codes: 063330012 Report No.: FOA-R-00316-2.2-SE

Oct 96 35p

Languages: Swedish

Journal Announcement: GRAI9712

Text in Swedish; summary in English. See also PB95-131363.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A04/MF A01

... in shallow water. We develop a method for estimating the targe parameters. Our method utilizes multipath propagation between a source and the receiver . The method requires a pronounced broadband source which will allow us to separate and estimate the timedelays involved. We use a theoretical model for the sound propagation to be able to compute theoretical timedelays for assumed source positions. We describe how this association is done as a part of...

Descriptors: Underwater acoustics; \*Target acquisition; \*Localization; \*Broadband; Underwater targets; Acoustic reflection; Acoustic sources; Depth; Shallow water; Tracking (Position); Velocity; Wave propagation; Sound fixing and ranging; Hydrophones

(Item 1 from file: 8)

DIALOG(R) File 8:Ei Compendex(R)

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E.I. No: EIP95032605415 04102427

Title: Probabilistic ray identification: a new tool for ocean acoustic tomography

Author: Martin-Lauzer, F.R.; Mauuary, D.; Stephan, Y.

Corporate Source: CMO, Brest, Fr

Conference Title: Proceedings of the 1994 IEEE International Conference on Acoustics, Speech and Signal Processing. Part 2 (of 6)

Conference Location: Adelaide, Aust Conference Date: 19940419-19940422

E.I. Conference No.: 42612

Source: Proceedings - ICASSP, IEEE International Conference on Acoustics, Processing v 2 1994. IEEE, Piscataway, NJ, Speech and Signal USA, 94CH3387-8. p 305-308

Publication Year: 1994

CODEN: IPRODJ ISSN: 0736-7791

Language: English

Abstract: A crucial point in Multipath Ocean Acoustic Tomography (MOAT) is to associate the estimated time delays to acoustical paths in order to make a correct geophysical inversion. We propose a theoretic...

Descriptors: Acoustic imaging; Probability; Geometry; Estimation; Inverse problems; Acoustic wave propagation; Mathematical models; Acoustic wave velocity; Acoustic receivers; Numerical analysis

Identifiers: Probabilistic ray identification; Ocean acoustic tomography; Acoustical paths; Multipath signals; Amplitude parameter; Geophysical inversion; Matched filtering; Acoustic rays

16/3,K/10 (Item 2 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

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03895356 E.I. No: EIP94071334468

Title: Temporal structure of acoustic signals scattered by ocean inhomogeneities

Author: Nechaev, A.G.; Fokin, V.N.; Fokina, M.S.

Corporate Source: Inst Prikladnoj Fiziki RAN, Nizhnij Novgorod, Russia

Source: Akusticheskii Zurnal v 40 n 02 Mar-Apr 1994. p 284-289

Publication Year: 1994

CODEN: AKZHAE ISSN: 0320-7919

Language: Russian

...Abstract: was used as numerical code for the diagnosis of oceanic inhomogeneities. In the case of multipath propagation, one may recover scattered signals from the time dependence of the scattered intensity using an isotropic source and receiver. Time delays were compared for signals that travelled from the source to the receiver both directly and trough a scattering inhomogeneity. The time structures of the scattered signals were...

Descriptors: Acoustic wave scattering; Oceanography; Acoustic waves; Seawater; Waveguides; Inverse problems; Acoustic wave velocity; Acoustic wave reflection; Computer simulation; Numerical analysis

16/3,K/11 (Item 3 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)

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00958101 E.I. Monthly No: EI8010078601 E.I. Yearly No: EI80078539

Title: OVERVIEW OF TIME DELAY ESTIMATION RESEARCH FOR SONAR SYSTEMS.
Author: Carter, G. Clifford

Corporate Source: Nav Underwater Syst Cent, New London, Conn

Source: Rec Asilomar Conf Circuits Syst Comput 13th, Pacific Grove, Calif, Nov 5-7 1979. Publ by IEEE (Cat n 79CHI468-8C), Piscataway, NJ, 1980 p 349-353

Publication Year: 1979

CODEN: RACSDI ISSN: 0736-5861

Language: ENGLISH

Title: OVERVIEW OF TIME DELAY ESTIMATION RESEARCH FOR SONAR SYSTEMS. Abstract: An overview of applied research in passive sonar signal processing and optimal time delay estimation techniques for naval systems is presented. The naval problem that motivates time delay estimation is the source state estimation problem. A discussion of this problem in terms of...

...a moving acoustic source is presented. An analytically tractable approach of decoupling the problem into multipath and planar components is followed. Optimum bearing and range estimators are presented for the planar problem and related to the optimum time delay vector estimator. Suboptimum realizations are considered together with the effects of source motion and receiver positional uncertainty. Estimators for source velocity are also presented that utilize relative time compression or generalized Doppler. 38 refs.

16/3,K/12 (Item 1 from file: 144) DIALOG(R)File 144:Pascal

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15090821 PASCAL No.: 01-0250524

Acoustic inversion via linearization and Bayesian multipath identification

MA Xiaoqun; MICHALOPOULOU Zoi-Heleni

Dept. of Mathematical Sci., New Jersey Inst. of Technol., University Heights, Newark, NJ 07102

Journal: The Journal of the Acoustical Society of America, 2001-05-01,

109 (5) p. 2384

Language: English

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# Acoustic inversion via linearization and Bayesian multipath identification

... arrival, first surface bounce, and first bottom bounce) for source localization and bathymetry and sound **speed estimation**. The ray path arrivals are selected from broadband, shallow water, synthetic data using a Bayesian **time delay** estimation scheme calculating posterior probability density functions of the delays in an efficient way. A...

... of the system is implemented; results of the two approaches are compared. Finally, the linearization multipath based technique is successfully applied to real acoustic broadband data for source and receiver localization, and bathymetry and sound speed estimation. (Work supported by ONR.)

16/3,K/13 (Item 2 from file: 144) DIALOG(R)File 144:Pascal (c) 2004 INIST/CNRS. All rts. reserv.

12041223 PASCAL No.: 95-0237010

Shallow water source track localization using matched multipath correlations

KNOBLES D P; WESTWOOD Evan K; FOCKE K C

Appl. Res. Labs., The Univ. of Texas at Austin, Austin, TX 78713
The 129th Meeting of the Acoustical Society of America (Washington, DC (USA)) 1995-05-30/1995-06-03

Journal: Journal of the Acoustical Society of America, 1995-05, 97 (5) 3293-3293

Language: English

Copyright (c) 1995 American Institute of Physics

# Shallow water source track localization using matched multipath correlations

... source using the signals received on a horizontal planar array is presented. The method involves **finding** the constant- **velocity**, straight-line source **track** that generates the least error between measured and modeled correlation traces over a period of...

... correlation traces are obtained by cross-correlating multiple pairs of received time series. Simulated correlation **time delays** are obtained using a ray model that includes the effects of refraction on the ray...

... A nonlinear optimization routine is used to obtain the best match in measured and simulated time delays over time and receiver pair. The main problem in shallow water is to identify which multipath pairs produce the correlation traces observed in the measured data. An approach for overcoming this problem that involves testing multiple hypotheses concerning the multipath pairs will be presented. An example application

of the method to a shallow water dataset with three bottom-mounted receivers in a triangular configuration is presented. In order to validate the localization, the measured correlagram...

```
25/3,K/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2004 Institution of Electrical Engineers. All rts. reserv.
         INSPEC Abstract Number: B2000-10-6250F-137
  Title: Adaptive channel estimation with velocity estimator for
W-CDMA receiver
  Author(s): Sakamoto, M.; Huoponen, J.; Niva, I.
  Author Affiliation: Dept. of Res. & Dev., Nokia Mobile Phones, Oulu,
Finland
  Conference Title: VTC2000-Spring. 2000 IEEE 51st Vehicular Technology
Conference Proceedings (Cat. No.00CH37026) Part vol.3
                                                        p.2024-8 vol.3
  Publisher: IEEE, Piscataway, NJ, USA
  Publication Date: 2000 Country of Publication: USA 3 vol. (1vi+2577)
  ISBN: 0 7803 5718 3 Material Identity Number: XX-2000-01363
  U.S. Copyright Clearance Center Code: 0 7803 5718 3/2000/$10.00
 Conference Title: 2000 IEEE 51st Vehicular Technology Conference.
Proceedings. VTC2000-Springer
  Conference Date: 15-18 May 2000 Conference Location: Tokyo, Japan
  Language: English
  Subfile: B
  Copyright 2000, IEE
  Title: Adaptive channel estimation with velocity estimator for
W-CDMA receiver
  Abstract: Adaptive channel estimation with velocity estimator is
proposed for the 3rd generation cellular system called IMT-2000. By using
the proposed velocity estimator, we can select the best channel
estimation mode depend based on the estimated vehicular speed . The
comparison of several channel estimation schemes is studied analytically.
Then each channel estimation 's capability depend on vehicular speed is
cleared. We studied the velocity estimator for channel estimation
 control. We evaluated the velocity estimator and adaptive channel estimation with velocity estimator under a multi- speed environment.
The proposed adaptive channel estimator can accomplish conflicting
features, a wide vehicular speed range, low speed to 300 km/h...
  ...Descriptors: cellular radio...
...radio receivers ; ...
... Wiener filters
  ...Identifiers: velocity estimator; ...
...W-CDMA receiver; ...
...3rd generation cellular system...
...adaptive Wiener filter
            (Item 1 from file: 8)
 25/3,K/2
DIALOG(R) File 8:Ei Compendex(R)
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.
          E.I. No: EIP04298263088
   Title: Novel adaptive filter for fading channel estimation in coherent
CDMA receivers
  Author: Lohan, Elena Simona; Renfors, Markku
  Corporate Source: Inst. of Communications Engineering Tampere University
of Technology, Tampere, Finland
  Conference Title: 2004 First International Symposium on Control,
Communications and Signal Processing, ISCCSP 2004
                                            Tunisia Conference
                             Hammamet,
                                                                     Date:
  Conference
                Location:
20040321-20040324
  E.I. Conference No.: 63232
```

Source: International Symposium on Control, Communications and Signal

Processing, ISCCSP 2004 First International Symposium on Control, Communications and Signal Processing, ISCCSP 2004 2004.

Publication Year: 2004

ISBN: 0780383796 Language: English

Title: Novel adaptive filter for fading channel estimation in coherent CDMA receivers

Abstract: Wireless communications have to cope with fading multipaths. Coherent **receivers** require the estimation of path amplitudes and phases. The choice of adequate filter length and...

...filter with fixed coefficients and adaptive length, which has a performance near to the optimum **Wiener filter** performance and a much lower complexity. The proposed filter length depends on both the mobile...

...filter with some other existent approaches in the literature, for a CDMA scenario, and we analyze the impact of speed estimation errors and signal quality estimation errors on the new filter design. The proposed theoretical filter design is also validated via...

Descriptors: Wireless telecommunication systems; Signal receivers; Code division multiple access; Adaptive filtering; Channel capacity; Signal processing; Bandwidth; Computational complexity; Computer simulation Identifiers: Signal quality; Speed estimation errors

25/3,K/3 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.

04872918 Genuine Article#: UN664 No. References: 115 Title: IMAGE-PROCESSING AND COMPUTER-AIDED DIAGNOSIS

Author(s): GIGER M; MACMAHON H

Corporate Source: UNIV CHICAGO, DEPT RADIOL MC2026, KURT ROSSMANN LABS RADIOL IMAGE RES, 5841 S MARYLAND AVE/CHICAGO//IL/60637

Journal: RADIOLOGIC CLINICS OF NORTH AMERICA, 1996, V34, N3 (MAY), P565& ISSN: 0033-8389

Language: ENGLISH Document Type: REVIEW (Abstract Available)

...Abstract: errors of oversight. Today, the availability of high-quality, high-resolution film digitizers and high- speed computers makes possible near-real-time processing of medical images to facilitate their interpretation. Various research...

Research Fronts: 94-2615 003 (DIGITAL CHEST RADIOGRAPHY; LESION DETECTABILITY; RECEIVER OPERATING CHARACTERISTIC ANALYSIS)
94-1490 002 (CORE BREAST BIOPSY; STEREOTAXIC FINE-NEEDLE ASPIRATION OF MAMMOGRAPHIC...

...FLUORIDE; LUMINESCENCE SPECTRA; MULTICOMPONENT OPTICAL MEDIA; LIYF4 SINGLE-CRYSTALS)

94-2003 001 (WAVELET TRANSFORMS; MULTISCALE WIENER FILTER; SCALING FUNCTIONS)

25/3,K/4 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
(c) 2004 ProQuest Info&Learning. All rts. reserv.

01894650 ORDER NO: AADAA-I3055781

Convergence analysis of the LMS and the constant modulus algorithms

Author: Dabeer, Onkar Jayant

Degree: Ph.D. Year: 2002

Corporate Source/Institution: University of California, San Diego (0033)

Source: VOLUME 63/06-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 2946. 142 PAGES

ISBN: 0-493-70900-2

- ...for the excess signal estimation error gives conditions under which the LMS algorithm outperforms the **Wiener filter** with the same number of taps. We also **analyze** a new **measure** of transient **speed**. The data is assumed to be an instantaneous transformation of a stationary Markov process satisfying...
- ...of channel noise. The case of fractionally spaced equalizer, and/or multiple antenna at the **receiver** is considered. For the noiseless case, we show that with proper initialization, and with small...
- ...establish a lower bound on the expected escape time from a small neighborhood of the Wiener filters, and a lower bound on the expected number of visits to a small neighborhood of the Wiener filters.

30/3,K/1 (Item 1 from file: 2) DIALOG(R)File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

INSPEC Abstract Number: A80072648 01541573

Title: Reference point equalization method for determining the source and path effects of surface waves

Author(s): Patton, H.

Author Affiliation: Dept. of Earth & Planetary Sci., MIT, Cambridge, MA,

Journal: Journal of Geophysical Research vol.85, no.B2

Publication Date: 10 Feb. 1980 Country of Publication: USA

CODEN: JGREA2 ISSN: 0148-0227

Language: English

Subfile: A

... Abstract: region, allowing the assumption that all events share the same path effects to a given receiver . Two steps in the method are initialization and iteration. Initialization obtains the first reference events in order to compute initial estimates of phase velocity and attenuation coefficient . Iteration simultaneously refines the propagation parameters and determines source parameters of new earthquakes. This method

(Item 1 from file: 34) 30/3, K/2

DIALOG(R) File 34: SciSearch(R) Cited Ref Sci (c) 2004 Inst for Sci Info. All rts. reserv.

Genuine Article#: GE466 No. References: 9

Title: DUAL-PROBE LASER INTERFEROMETER

Author(s): HUANG J; ACHENBACH JD

Corporate Source: NORTHWESTERN UNIV, CTR QUAL ENGN & FAILURE

PREVENT/EVANSTON//IL/60208

Journal: JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, 1991, V90, N3, P 1269-1274

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

... Abstract: measurement of the speed and attenuation of surface waves. The interferometer has been employed to determine phase velocities and attenuation coefficients for surface wave propagation over an aluminum plate with increasing degrees of surface roughness.

Research Fronts: 89-4752 001 (LASER GENERATION; SURFACE ACOUSTIC-WAVES; PULSED CALIBRATION TECHNIQUE OF MINIATURE ULTRASONIC RECEIVERS )

30/3,K/3 (Item 1 from file: 95)

DIALOG(R) File 95: TEME-Technology & Management

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01608558 20020202351

Applying STAP techniques for correct positioning of moving targets within SAR images

Meyer-Hilberg, J

EADS Deutschland, Ulm, D

GRS 2000, German Radar Symp., Proc., Berlin, D, 11-12 Oct, 20002000

Document type: Conference paper Language: English

Record type: Abstract

## ABSTRACT:

...Moving targets are displaced in azimuthal direction due to the Doppler frequency caused by target velocities . The detection and correct positioning of moving targets within SAR images is a problem that can be solved by multiple antennas and multichannel receivers . Usually, monopulse is applied to estimate the target's fine azimuthal positions by using phase differences between the receiver channels. Admittedly, phase measurements are biased by phase errors of antennas and **receivers**. To compensate these **phase** errors, calibration **coefficients** have to be determined, e.g. by using an on-line correction analysis of the **receiver** signals. Such a correlation analysis can be performed e.g. by applying Space-Time Adaptive...

...DESCRIPTORS: ADJUST TO STANDARD; CORRELATION COEFFICIENT; MEASURED DATA EVALUATION; PHASE ANALYSIS; PHASE DIFFERENCE; PHASE ERROR; HORIZONTAL MEASUREMENT

30/3,K/4 . (Item 1 from file: 144) DIALOG(R)File 144:Pascal (c) 2004 INIST/CNRS. All rts. reserv.

16715010 PASCAL No.: 04-0368037

Joint cross-well and single-well seismic studies of CO SUB 2 injection in an oil reservoir

GRITTO R; DALEY T M; MYER L R

Lawrence Berkeley National Lab, 1 Cyclotron Road, Mail Stop: 90-1116,

Berkeley, CA 94720, United States

Journal: Geophysical prospecting, 2004, 52 (4) 323-339

Language: English

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... while the post-injection data revealed velocities between 500 and 700 m/s (-68). These **velocity estimates** produced high Poisson's ratios between 0.36 and 0.46 for this highly porous...

... pre-injection data revealed an increase in Poisson's ratio of up to 5%. Both **velocity** and Poisson's ratio **estimates** indicate the dissolution of CO SUB 2 in the liquid phase of the reservoir accompanied...

... revealed an arrival that could indicate the presence of the hydrofracture between the source and **receiver** wells, while it did not detect the presence of the fault, possibly due to out...

French Descriptors: Diaclase; Injection; Reservoir; Onde S; Haute frequence; Onde P; Hydrophone; Geophone; Vitesse; Exposition; Coefficient
Poisson; Materiau; Dissolution; Phase liquide; Pression interstitielle;
Faille

30/3,K/5 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2004 INIST/CNRS. All rts. reserv.

16585328 PASCAL No.: 04-0234648

On arrangement of source and receivers in SASW testing LONGZHU CHEN; JINYING ZHU; XISHUI YAN; CHUNYU SONG

School of Civil Engng. and Mechanics, Shanghai Jiaotong University, Shanghai 200030, China; Department of Civil and Envir. Engng., University of Illinois at Urbana-Champaign, IL 61801, United States; College of Architecture and Civil Engng., Zhejiang Univ., Hangthou 310027, China Journal: Soil dynamics and earthquake engineering: (1984), 2004, 24 (5) 389-396

Language: English

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## On arrangement of source and receivers in SASW testing

This study investigates the effects of source and **receivers** arrangement on the Rayleigh wave dispersion curve in SASW testing. Analytical studies and numerical simulations...

... infinite elements are presented in this paper. It is shown that arrangement of source and receivers has a significant effect on test

results, especially for soils with high Poisson's ratio or saturated soils. Larger source-to- receiver distance and receiver spacing usually give better results, and it is unnecessary to keep them equal. To satisfy the error control requirement in Rayleigh wave phase velocity measurement, source-to- receiver distance and receiver spacing should meet corresponding minimum values, which are proposed for different Poisson's ratios of...

English Descriptors: testing; Rayleigh waves; wave dispersion; simulation; soils; Poisson's ratio; errors; phase **velocity**; spectral **analysis**; surface waves

French Descriptors: Experimentation; Onde Rayleigh; Dispersion onde; Simulation; Sol; Coefficient Poisson; Erreur; Vitesse phase; Analyse spectrale; Onde surface

(Item 1 from file: 2) DIALOG(R) File 2:INSPEC (c) 2004 Institution of Electrical Engineers. All rts. reserv. INSPEC Abstract Number: B9801-6250F-146 5766276 with identification of flat fading Title: Adaptive MLSD receiver channels Author(s): Zamiri-Jafarian, H.; Pasupathy, S. Author Affiliation: Dept. of Electr. & Comput. Eng., Toronto Univ., Ont., Canada Title: 1997 IEEE 47th Vehicular Technology Conference. Conference Technology in Motion (Cat. No.97CH36003) Part vol.2 p.695-9 vol.2 Publisher: IEEE, New York, NY, USA Publication Date: 1997 Country of Publication: USA 3 vol. xxx+2247 pp. ISBN: 0 7803 3659 3 Material Identity Number: XX97-01598 U.S. Copyright Clearance Center Code: 0 7803 3659 3/97/\$10.00 Conference Title: 1997 IEEE 47th Vehicular Technology Conference. Technology in Motion Conference Date: 4-7 May 1997 Conference Location: Phoenix, AZ, USA Language: English Subfile: B Copyright 1997, IEE

## Title: Adaptive MLSD receiver with identification of flat fading channels

...Abstract: maximum likelihood sequence detection (MLSD) algorithm for the Raleigh flat fading environment in association with channel coefficient estimation and channel identification. The design of the MLSD receiver depends on a knowledge of the channel. Along with different channel knowledge assumptions we consider the general case when the channel coefficient is time-variant and the channel statistical characteristics are unknown. The proposed adaptive algorithm has three recursive steps. The channel coefficient is estimated for each path in the trellis diagram by using Kalman filtering; then, based...

... in the channel parameters when the fading rate is changing due to the varying vehicle **speed**. Performance **evaluation** and comparisons are considered for different levels of channel knowledge by computer simulation.

...Descriptors: radio receivers;
Identifiers: adaptive MLSD receiver; ...

... channel coefficient estimation

# File 256:TecInfoSource 82-2004/Jul (c)2004 Info.Sources Inc

Set	Items	Description
s1		((ESTIMAT??? OR CALCULAT??? OR COMPUT??? OR DETERMIN??? OR
		ALUAT??? OR ANALY???? OR FIND??? OR SEARCH??? OR MONITOR???
	OR	TRACK??? OR GAUG??? OR MEASUR??? OR IDENTIF??? OR SENS??? -
	OR	DETECT???) (5N) (SPEED?? OR ACCLERAT??? OR VELOCIT???))
S2	3017	(RECEIVER???? OR TRANSCEIVER?? OR CELLULAR?? OR CELLPHON??
	OR	CELL() PHON??) OR ((MOBILE?? OR REMOTE?? OR WIRELESS?? OR W-
		E()LESS?? OR CELLULAR??) (3N) (UNIT? OR DEVICE? ? OR APPARATU-
		? OR TERMINAL?? OR PHONE? OR TELEPHONE?))
s3	33	TIME(3N)DELAY?? OR TIMEDELAY???
S 4	39	MULTI()PATH?? OR MULTIPATH?? OR MULTIPLEPATH OR MULTIPLE()-
	PA	TH??
S 5	0	PHASE?? (5N) DIFFERENC??
S·6	· 3	(SPEED OR VELOCIT???) (1N) LIGHT??
s7	1	CARRIER (2N) FREQUEN???
S8	2	SAMPL???(2N) PERIOD??
S 9	0	CHANNEL??(2N)COEFFICIENT??
S10	0	PHASE??(3N)COEFFICIEN??
S11	0	WIENER??(3N)FILTER??
S12	0	AU=(DA()ROCHA A? OR DAROCHA A? OR DA()ROCHA, A? OR DAROCHA,
	A?	OR GUILBAUD M? OR GUILBAUD, M?)
S13	36	S1 AND S2
S14	0	S13 AND (S3 OR S4)
·S15	0	S13 AND (S6 OR S7 OR S8)
S16	5	S1 (9N) S2

16/3,K/1

DIALOG(R) File 256:TecInfoSource (c) 2004 Info.Sources Inc. All rts. reserv.

00149988 DOCUMENT TYPE: Review

PRODUCT NAMES: EIDAQ 100 (199443)

TITLE: Solutions for High-Throughput Microscopy

AUTHOR: Moran, Tim Breindl, Anette

SOURCE: Genetic Engineering News, v23 n18 p30(2) Oct 15, 2003

HOMEPAGE: http://www.genengnews.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis GRADE: Product Analysis, No Rating

REVISION DATE: 20040228

...microscopy) system increases the productivity of researchers by combining the ability to concurrently monitor multiple **cellular** components or events with **speedy** collection and **analysis**. Q2DM engineers developed proprietary autofocus hardware for fast cell-imaging, and the Eidag uses Q2DM...

16/3,K/2

DIALOG(R) File 256: TecInfoSource (c) 2004 Info. Sources Inc. All rts. reserv.

00148780 DOCUMENT TYPE: Review

PRODUCT NAMES: WANDA (190438); Sprint 1x RTT (190454); Bluetooth (841455)

TITLE: Merging Wireless Standards: Combing Wi-Fi with other wireless...

AUTHOR: Bajarin, Tim

SOURCE: Field Force Automation, v4 n6 p22(2) Jun 2003

HOMEPAGE: http://www.ffamag.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

REVISION DATE: 20031230

...along with Bluetooth-ready abilities, including printing, headset listening, and integrated digital signal processor (DSP)- speeded multimedia applications. Most analysts think future PDA and cell phone technology will include data access at multiple levels. For business users, this means access to...

16/3,K/3

DIALOG(R) File 256: TecInfoSource (c) 2004 Info. Sources Inc. All rts. reserv.

00138156 DOCUMENT TYPE: Review

PRODUCT NAMES: Telephone Companies (836249)

TITLE: Coming Attractions: Cellular carriers hope compelling content

will ...

AUTHOR: Cotriss, David

SOURCE: commVerge, v3 n3 p36(6) Mar 2002

ISSN: 1531-7838

HOMEPAGE: http://www.commvergemag.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

REVISION DATE: 20030330

Experts comment on the future of **cell phones**, which some say will be full-functioned communications and **computing** devices that link to high-speed data venues to provide access to all types of impressive content.

However, others in the...

16/3,K/4

DIALOG(R) File 256:TecInfoSource (c) 2004 Info.Sources Inc. All rts. reserv.

00130724 DOCUMENT TYPE: Review

PRODUCT NAMES: Active Bat (047627)

TITLE: Tracking Your Every Move: A new ultrasound device pinpoints the...

AUTHOR: DiSabatino, Jennifer

SOURCE: Computerworld, v35 n21 p56(1) May 21, 2001

ISSN: 0010-4841

HOMEPAGE: http://www.computerworld.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

REVISION DATE: 20030330

...sends sound waves that are received by three or more nodes in a grid of receivers placed throughout a building, generally above ceiling tiles.

Receivers measure speed of sound waves from Active Bat, and the system computes the distance from the wearer...

16/3,K/5

DIALOG(R) File 256:TecInfoSource (c) 2004 Info.Sources Inc. All rts. reserv.

00127731 DOCUMENT TYPE: Review

PRODUCT NAMES: AT&T PocketNet (687154); i-mode (030074); GSM (844012)

TITLE: Is Wireless Just the Ticket? Airlines wonder if fliers want cell...

AUTHOR: Nobel, Carmen

SOURCE: eWeek, v18 n1 p25(1) Jan 1, 2001

ISSN: 1530-6283

HOMEPAGE: http://www.eweek.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis GRADE: Product Analysis, No Rating

REVISION DATE: 20030330

... The next version of IBM Global System for Mobile Communications will use digital certificates on mobile phones, a security measure that could speed up availability of wireless ticketing.